IMPORTANT NOTICE

NOT FOR DISTRIBUTION IN THE UNITED STATES

IMPORTANT: You must read the following disclaimer before continuing. The following disclaimer applies to the offering circular (the "**Offering Circular**") attached to this e-mail. You are therefore advised to read this disclaimer carefully before reading, accessing or making any other use of the Offering Circular. In accessing the Offering Circular, you agree to be bound by the following terms and conditions, including any modifications to them from time to time, each time you receive any information as a result of such access. You acknowledge that the access to the Offering Circular is intended for use by you only and you agree you will not forward or otherwise provide access to any other person.

NOTHING IN THIS ELECTRONIC TRANSMISSION CONSTITUTES AN OFFER OF SECURITIES FOR SALE IN THE UNITED STATES OR ANY OTHER JURISDICTION WHERE IT IS UNLAWFUL TO DO SO.

THE PREFERENCE SHARES HAVE NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR THE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR OTHER JURISDICTION AND THE PREFERENCE SHARES MAY NOT BE OFFERED OR SOLD WITHIN THE UNITED STATES, EXCEPT PURSUANT TO AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND APPLICABLE STATE OR LOCAL SECURITIES LAWS. THIS OFFERING IS MADE SOLELY IN OFFSHORE TRANSACTIONS PURSUANT TO REGULATION S UNDER THE SECURITIES ACT.

THE OFFERING CIRCULAR MAY NOT BE FORWARDED OR DISTRIBUTED TO ANY OTHER PERSON AND MAY NOT BE REPRODUCED IN ANY MANNER WHATSOEVER AND, IN PARTICULAR, MAY NOT BE FORWARDED TO ANY ADDRESS IN THE UNITED STATES. ANY FORWARDING, DISTRIBUTION OR REPRODUCTION OF THIS DOCUMENT IN WHOLE OR IN PART IS UNAUTHORISED. FAILURE TO COMPLY WITH THIS DIRECTIVE MAY RESULT IN A VIOLATION OF THE SECURITIES ACT OR THE APPLICABLE LAWS OF OTHER JURISDICTIONS. IF YOU HAVE GAINED ACCESS TO THIS TRANSMISSION CONTRARY TO ANY OF THE FOREGOING RESTRICTIONS, YOU ARE NOT AUTHORISED AND WILL NOT BE ABLE TO PURCHASE ANY OF THE PREFERENCE SHARES DESCRIBED THEREIN.

PRIIPs REGULATION/PROHIBITION OF SALES TO EEA RETAIL INVESTORS – The Preference Shares are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area ("**EEA**"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "**MiFID II**"); or (ii) a customer within the meaning of Directive (EU) 2016/97 (the "**Insurance Distribution Directive**"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II. Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the "**PRIIPs Regulation**") for offering or selling the Preference Shares or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Preference Shares or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

UK PRIIPs REGULATION/PROHIBITION OF SALES TO UK RETAIL INVESTORS – The Preference Shares are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the United Kingdom (the "**UK**"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client, as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 (the "**EUWA**"); (ii) a customer within the meaning of the provisions of the Financial Services and Markets Act 2000 (the "**FSMA**") and any rules or regulations made under the FSMA to implement the Insurance Distribution Directive, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA. Consequently no key information document required by the PRIIPs Regulation as it forms part of domestic law by virtue of the EUWA (the "**UK PRIIPs Regulation**") for offering or selling the Preference Shares or otherwise making them available to retail investors in the UK has been prepared and therefore offering or selling the Preference Shares or otherwise making them available to any retail investor in the UK may be unlawful under the UK PRIIPs Regulation.

Singapore Securities and Futures Act Product Classification – Solely for the purposes of its obligations pursuant to Sections 309B (1)(a) and 309(1)(c) of the Securities and Futures Act (Chapter 289) of Singapore (the "**SFA**"), the Issuer (as defined below) has determined, and hereby notifies all relevant persons (as defined in Section 309(A)(1) of the SFA), that the Preference Shares are "prescribed capital markets products" (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018 of Singapore).

Confirmation of Your Representation: In order to be eligible to view the Offering Circular or make an investment decision with respect to the Preference Shares, investors must not be located in the United States. The Offering Circular is being sent at your request and by accepting the e-mail and accessing the Offering Circular, you shall be deemed to have represented to Merrill Lynch (Asia Pacific) Limited, BOCI Asia Limited, Industrial and Commercial Bank of China (Asia) Limited, ABCI Capital Limited, BOCOM International Securities Limited and CLSA Limited (together, the "**Joint Lead Managers**"), SPIC Preferred Company No.1 Ltd. 國家電投優先股有限公司1號 (the "**Issuer**") and State Power Investment Corporation Limited (the "**Parent**" or the "**Company**") that: (1) you and any customers you represent are not in the United States, (2) the electronic mail address that you gave us and to which this e-mail has been delivered is not located in the United States, and (3) you consent to delivery of the Offering Circular by electronic transmission. To the extent you purchase the Preference Shares described in the attached document, you will be doing so in an offshore transaction as defined in regulations under the Securities Act in compliance with Regulation S thereunder.

The Offering Circular has been made available to you in electronic form. You are reminded that documents transmitted via this medium may be altered or changed during the process of electronic transmission and consequently neither the Issuer, the Company, the Joint Lead Managers, the Trustee, the Agents nor any of their respective affiliates, directors, officers, employees, representatives, advisers or agents, nor any person who controls any of them accepts any liability or responsibility whatsoever in respect of any such alteration or change to the Offering Circular distributed to you in electronic format or any difference between the Offering Circular distributed to you in electronic format and the hard copy version available to you on request from the Joint Lead Managers.

Restrictions: Nothing in this electronic transmission constitutes, and this electronic transmission may not be used in connection with, an offer or an invitation by or on behalf of any of the Issuer, the Company or the Joint Lead Managers to subscribe or purchase any of the securities described therein, in any place where offers or solicitations are not permitted by law and access has been limited so that it shall not constitute in the United States or elsewhere directed selling efforts (within the meaning of Regulation S under the Securities Act). If a jurisdiction requires that the offering be made by a licensed broker or dealer and any Joint Lead Manager or any affiliate of a Joint Lead Manager is a licensed broker or dealer in that jurisdiction, the offering shall be deemed to be made by that Joint Lead Manager or such affiliate on behalf of the Issuer and the Company in such jurisdiction. Any securities to be issued in respect thereof will not be registered under the Securities Act and may not be offered or sold in the United States unless registered under the Securities Act or pursuant to an exemption from such registration. Access has been limited so that it shall not constitute a general solicitation in the United States or elsewhere. If you have gained access to this transmission contrary to the foregoing restrictions, you will be unable to purchase any of the securities described therein.

You are reminded that you have accessed the Offering Circular on the basis that you are a person into whose possession the Offering Circular may be lawfully delivered in accordance with the laws of the jurisdiction in which you are located and you may not, nor are you authorised to, deliver the Offering Circular to any other person.

The materials relating to the offering of Preference Shares do not constitute, and may not be used in connection with, an offer or solicitation in any place where offers or solicitations are not permitted by laws.

Actions that you may not take: If you receive the Offering Circular by e-mail, you should not reply by e-mail to this electronic transmission, and you may not purchase any Preference Shares by doing so. Any reply e-mail communications, including those you generate by using the "Reply" function on your e-mail software, will be ignored or rejected.

You are responsible for protecting against viruses and other destructive items. Your use of this e-mail is at your own risk and it is your responsibility to take precautions to ensure that it is free from viruses and other items of a destructive nature.

STRICTLY CONFIDENTIAL

SPIC PREFERRED COMPANY NO.1 LTD.
國家電投優先股有限公司1號

(incorporated with limited liability in the Cayman Islands)

U.S.$900,000,000 3.38 per cent. Preference Shares

with the benefit of a Keepwell Deed provided by

国家电力投资集团有限公司
STATE POWER INVESTMENT CORPORATION LIMITED

STATE POWER INVESTMENT CORPORATION LIMITED

(incorporated in the People's Republic of China with limited liability)

Issue Price for the Preference Shares: 100 per cent.

The U.S.$900,000,000 3.38 per cent. preference shares (the "**Preference Shares**") will be issued by SPIC Preferred Company No.1 Ltd. 國家電投優先股有限公司1號, an exempted company with limited liability incorporated under the laws of the Cayman Islands (the "**Issuer**"). The Preference Shares will have a par value of U.S.$0.01 each and will be issued as fully paid-up capital in U.S. dollars so that the issuance price of the Preference Shares will be U.S.$1,000 each (the "**Liquidation Preference**"). The Preference Shares will be issued in registered form and issued and transferable only in minimum amounts of U.S.$200,000 (or 200 Preference Shares) and integral multiples of U.S.$1,000 (or 1 Preference Share) in excess thereof (each, an "**Authorised Denomination**").

The Issuer will enter into intragroup perpetual senior financing agreements (each, an "**Intragroup Financing Agreement**") with State Power Investment Corporation Limited (the "**Parent**" or the "**Company**") and certain offshore subsidiaries of the Parent (each such subsidiary, a "**Financing Recipient**") on or around the Issue Date (as defined below), pursuant to which the Issuer as financing provider (the "**Financing Provider**") will, subject to, and in accordance with, the provisions of the Intragroup Financing Agreements, on-lend the entire gross proceeds from the issue of the Preference Shares to the the Financing Recipients (each, a "**Financing**"). Each Financing is perpetual and has no maturity date. The arrangement of payment of principal amount and distribution by each Financing Recipient will be similar to the Liquidation Preference and Dividend payment arrangement under the Preference Shares. The due payment of all sums expressed to be payable by the Financing Recipients to the Financing Provider from time to time under the Intragroup Financing Agreements will be unconditionally and irrevocably guaranteed by the Parent subject to, and in accordance with, the provisions of the deeds of senior guarantee entered into between the Issuer and the Parent on or around the Issue Date in respect of each Financing (each, a "**Financing Guarantee**"). The Issuer is an indirectly wholly-owned subsidiary of the Parent. The Issuer will not carry on any business activity and not incur or have outstanding any indebtedness for moneys borrowed or raised (whether senior or subordinated), other than (a) borrowing activities and activities in connection with the issue of the Preference Shares or the entering into each Financing and the Financing Guarantees and any other activities reasonably incidental thereto; and (b) the entry into any shareholders' loan that ranks or is expressed to rank, by their terms or by operation of law, in right of payment behind the claims of the Preference Shareholders. The Financing Provider will have rights under each Financing and the Financing Guarantees against the Financing Recipients and the Parent respectively, but Preference Shareholders do not have direct recourse to the Financing Recipients or the Parent under each Financing or the Financing Guarantees. However, upon (i) the Winding-Up of any Financing Recipient or the Parent and/or (ii) any amount under any Financing and/or any Financing Guarantee payable by any Financing Recipient or the Parent to the Financing Provider not being paid when due or (as the case may be) within any applicable grace period, the Preference Shareholders and the Trustee may through the Financing Provider enforce rights under each Financing and the Financing Guarantees on behalf of the Financing Provider to receive payments due to the Financing Provider under each Financing and the Financing Guarantees. Please refer to "*Description of the Intragroup Financing Agreements and the Financing Guarantees*" for further details.

The Parent intends to assist the Issuer in meeting its obligations under the Preference Shares and has entered into a keepwell deed (the "**Keepwell Deed**") on or around the Issue Date with the Issuer and China Construction Bank (Asia) Corporation Limited (中國建設銀行(亞洲)股份有限公司) as trustee (the "**Trustee**"), whereby the Parent has provided certain undertakings in respect of the Issuer, the Preference Shares, the Intragroup Financing Agreements and the Financing Guarantees. Please refer to "*Description of the Keepwell Deed*" for further details. **The Keepwell Deed does not constitute a guarantee by the Parent of the obligations of the Issuer under the Preference Shares and may not give rise to a debt claim in the event of any insolvency proceedings in relation to the Parent.**

The Preference Shares are perpetual and have no maturity date. The Preference Shares will constitute direct, unsecured and subordinated obligations of the Issuer which rank *pari passu* and without any preference or priority of payment among themselves. The rights and claims in respect of holders of the Preference Shares (the "**Preference Shareholders**" or in relation to the Preference Shares, the "**Holders**") shall rank: (a) junior to holders of all general unsubordinated liabilities of the Issuer; (b) equally in all respects with each other and without preference or priority of payment among themselves and with the holders of all Parity Obligations (as defined in the terms and conditions of the Preference Shares (the "**Terms and Conditions of the Preference Shares**" and each, a "**Condition**")) of the Issuer; and (c) in priority to the holders of all Junior Obligations (as defined in the Terms and Conditions of the Preference Shares) of the Issuer.

Subject as provided in the Terms and Conditions of the Preference Shares, each Preference Share shall entitle the Holder thereof to receive dividends and/or distributions (each a "**Dividend**") which are due but unpaid at the rate of Dividend (the "**Dividend Rate**"): (i) in respect of the period from, and including, 9 November 2021 (the "**Issue Date**") to, but excluding, 9 November 2024 (the "**First Reset Date**"), at 3.38 per cent. per annum (the "**Initial Dividend Rate**"), and (ii) in respect of the period (A) from, and including, the First Reset Date to, but excluding, the Reset Date (as defined in the Terms and Conditions of the Preference Shares) falling immediately after the First Reset Date, and (B) from, and including, each Reset Date thereafter to, but excluding, the immediately following Reset Date, the Relevant Reset Dividend Rate (as defined in the Terms and Conditions of the Preference Shares).

Subject as provided in the Terms and Conditions of the Preference Shares, Dividends shall be payable on the Preference Shares semi-annually in arrear in equal instalments on 9 May and 9 November of each year (each, a "**Dividend Payment Date**"), commencing on 9 May 2022. The Issuer (a) may, at its sole discretion, elect to defer (in whole or in part) unless a Compulsory Dividend Payment Event (as defined in the Terms and Conditions of the Preference Shares) has occurred and (b) in the case where any condition set out in Condition 4.4 of the Terms and Conditions of the Preference Shares is not satisfied in respect of any relevant Dividend Period, shall compulsorily defer in whole, any Dividend which is otherwise scheduled to be paid on a Dividend Payment Date to the next Dividend Payment Date by giving notice to the Preference Shareholders, the Trustee and the Principal Paying Agent (as defined in the Terms and Conditions of the Preference Shares) in writing not more than 15 Payment Business Days (as defined in the Terms and Condition of the Preference Shares) nor less than five Payment Business Days prior to a scheduled Dividend Payment Date. Any Dividend so deferred shall constitute "**Arrears of Dividend**" and the restrictions as described in "*Terms and Conditions of the Preference Shares – Dividends – Dividend Deferral of Preference Shares – Restrictions in the case of Deferral*" shall apply. Each amount of Arrears of Dividend shall accrue Dividends as if it constituted the Liquidation Preference of the Preference Shares at the prevailing Dividend Rate and the amount of such Dividends (the "**Additional Dividend Amount**") with respect to Arrears of Dividend shall be due and payable pursuant to the Terms and Conditions of the Preference Shares. The Issuer may further elect to defer further (in whole or in part), or shall compulsorily defer in whole, in each case in the circumstances set out in Terms and Conditions of the Preference Shares any Arrears of Dividend by complying with the notice requirement applicable to any deferral of an accrued Dividend and is not subject to any limit as to the number of times Dividends and Arrears of Dividend can or shall be deferred. See "*Terms and Conditions of the Preference Shares – Dividend – Dividend Deferral of Preference Shares – Cumulative Deferral*".

Upon the occurrence of a Change of Control Event, a Breach of Covenants Event or a Relevant Indebtedness Default Event (each as defined in the Terms and Conditions of the Preference Shares and each a "**Step-up Event**"), unless (i) an irrevocable notice to redeem the Preference Shares has been given to Preference Shareholders by the Issuer by the 30th day following the occurrence of the relevant Step-up Event; or (ii) in the case of a Step-up Event other than a Change of Control Event, such Step-up Event is remedied by the 30th day following the occurrence of such Step-up Event, the Dividend Rate will increase by 3.00 per cent. per annum with effect from (i) the next Dividend Payment Date or (ii) if the date on which the relevant Step-up Event occurs is prior to the most recent preceding Dividend Payment Date, such Dividend Payment Date, **provided that** the maximum aggregate increase in the Dividend Rate shall not exceed 3.00 per cent. per annum and the Dividend Rate in any case shall not exceed the Maximum Dividend Rate (as defined in the Terms and Conditions of the Preference Shares), as further described in "*Terms and Conditions of the Preference Shares – Dividend – Increase or Decrease in Dividend Rate following occurrence of certain events*".

The Preference Shares may be redeemed at the option of the Issuer in whole or in part, on giving not more than 60 nor less than 30 days' irrevocable notice to the Trustee, the Principal Paying Agent and the Preference Shareholders at the Liquidation Preference of each Preference Share, together with any Dividend (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption on the First Call Date or on any Dividend Payment Date after the First Call Date, including the First Reset Date. The Preference Shares may also be redeemed at the option of the Issuer in whole, but not in part, at any time, on giving not more than 60 nor less than 30 days' irrevocable notice to the Trustee, the Principal Paying Agent and the Preference Shareholders at (i) 101 per cent. of the Liquidation Preference of each Preference Share plus any Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption, at any time before the First Call Date; or (ii) the Liquidation Preference of each Preference Share plus any Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption, at any time on or after the First Call Date, if a Change of Control Event occurs. The Preference Share may also be redeemed at the option of the Issuer at any time, on giving not less than 30 nor more than 60 days' irrevocable notice to the Trustee, the Principal Paying Agent and the Preference Shareholders, for taxation reasons, for accounting reasons, on the occurrence of a Breach of Covenants Event or a Relevant Indebtedness Default Event or for minimum outstanding amount subject to Condition 6 of the Terms and Conditions of the Preference Shares. See "*Terms and Conditions of the Preference Shares – Redemption*". The Preference Shares are not redeemable at the option of the Preference Shareholders, and the Preference Shareholders have no right to request the Issuer to redeem the Preference Shares. Other than in the event of a Winding-Up of the Issuer or the Parent, no Preference Shareholder will be able to declare any payment of the Liquidation Preference or Dividend under the Preference Shares immediately due and payable.

The Parent has made an application for the pre-issuance registration (the "**Pre-Issuance Registration**") in relation to the Preference Shares with the National Development and Reform Commission of the PRC (the "**NDRC**") in accordance with the Notice on Promoting the Reform of the Filing and Registration System for Issuance of Foreign Debt by Corporates (國家發展改革委關於推進企業發行外債備案登記制管理改革的通知(發改外資[2015]2044號)) promulgated by the NDRC on 14 September 2015 which came into effect immediately and any implementation rules as issued by the NDRC from time to time (the "**NDRC Notice**"). The Parent has received an Enterprise Foreign Debt Filing Registration Certificate dated 3 September 2021 from the NDRC in connection with the Pre-Issuance Registration. Pursuant to the requirements of the NDRC Notice, the Parent will be required to submit the filing in respect of the issue of the Preference Shares within the prescribed timeframe (the "**Post-Issuance Filing**").

The Parent will be required to file or cause to be filed with the State Administration of Foreign Exchange of the PRC or its local branch ("**SAFE**") the Financing Guarantees within the prescribed timeframe after execution of each Financing Guarantee in accordance with the Provisions on the Foreign Exchange Administration of Cross-Border Guarantees (跨境擔保外匯管理規定) promulgated by SAFE on 12 May 2014 which came into effect on 1 June 2014 (the "**Cross-Border Security Registration**"). The Parent intends to complete the Cross-Border Security Registration in respect of each Financing Guarantee with SAFE before the Registration Deadline (being 150 PRC Business Days (as defined in the Terms and Conditions of the Preference Shares) after the Issue Date) and comply with all applicable PRC laws and regulations in relation to the Financing Guarantees.

Investing in the Preference Shares involves risks. See "*Risk Factors*" beginning on page 28 for a discussion of certain factors to be considered in connection with an investment in the Preference Shares.

The Preference Shares have not been and will not be registered under the United States Securities Act of 1933, as amended (the "Securities Act") and may not be offered or sold within the United States, except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. The Preference Shares are being offered in offshore transactions outside the United States in reliance on Regulation S under the Securities Act. For a description of these and certain further restrictions on offers and sales of the Preference Shares and the distribution of this Offering Circular, see "*Subscription and Sale*".

Application has been made to the Singapore Exchange Securities Trading Limited (the "**SGX-ST**") for the listing of and quotation for the Preference Shares on the Official List of the SGX-ST. The SGX-ST assumes no responsibility for the correctness of any of the statements made or opinions expressed or reports contained herein. Approval-in-principle for the listing and quotation of the Preference Shares on, and admission to the Official List of, the SGX-ST and quotation of the Preference Shares on the SGX-ST is not to be taken as an indication of the merits of the Issuer, the Parent, their subsidiaries, their associated companies or the Preference Shares.

The Preference Shares are expected to be rated "Baa1" by Moody's Investors Services ("**Moody's**"). A credit rating is not a recommendation to buy, sell or hold the Preference Shares and may be subject to revision, qualification, suspension, reduction or withdrawal at any time by the assigning rating agency.

Joint Global Coordinators

BofA Securities **BOC International** **ICBC (Asia)**

Joint Lead Managers and Joint Bookrunners

BofA Securities **BOC International** **ICBC (Asia)** **ABC International** **BOCOM International** **CLSA**

Offering Circular dated 2 November 2021

IMPORTANT NOTICE

THIS OFFERING CIRCULAR DOES NOT CONSTITUTE AN OFFER TO SELL, OR A SOLICITATION OF AN OFFER TO BUY, ANY PREFERENCE SHARES IN ANY JURISDICTION TO ANY PERSON TO WHOM IT IS UNLAWFUL TO MAKE THE OFFER OR SOLICITATION IN SUCH JURISDICTION. NEITHER THE DELIVERY OF THIS OFFERING CIRCULAR NOR ANY SALE MADE HEREUNDER SHALL UNDER ANY CIRCUMSTANCES IMPLY THAT THERE HAS BEEN NO CHANGE IN THE AFFAIRS OF THE ISSUER, THE PARENT OR ANY OF THEIR RESPECTIVE SUBSIDIARIES OR THAT THE INFORMATION SET FORTH IN THIS OFFERING CIRCULAR IS CORRECT AS OF ANY DATE SUBSEQUENT TO THE DATE HEREOF.

Each of the Issuer and the Parent accepts full responsibility for the accuracy of the information contained in this Offering Circular and confirms that (i) this Offering Circular contains all information with respect to the Issuer, the Parent, the Group, the Keepwell Deed, the Intragroup Financing Agreements, the Financing Guarantees and the Preference Shares which is material in the context of the issue and offering of the Preference Shares (including all information required by applicable laws and the information which, according to the particular nature of the Issuer, the Parent, the Keepwell Deed and the Preference Shares, is necessary to enable investors and their investment advisers to make an informed assessment of the assets and liabilities, financial position, profits and losses and prospects of the Issuer, the Parent and the Group and of the rights attaching to the Preference Shares and the Keepwell Deed), (ii) the statements contained in this Offering Circular relating to the Issuer, the Parent, the Group, the Keepwell Deed, the Intragroup Financing Agreements, the Financing Guarantees and the Preference Shares are true and accurate in all material respects and not misleading, (iii) the opinions and intentions expressed in this Offering Circular with regard to the Issuer, the Parent and the Group are honestly and reasonably held, have been reached after considering all relevant circumstances and are based on reasonable assumptions, (iv) there are no other material facts in relation to the Issuer, the Parent, the Group, the Preference Shares, the Keepwell Deed, the Intragroup Financing Agreements or the Financing Guarantees necessary to be included in this Offering Circular in order to make any statements, opinions or intentions expressed in this Offering Circular, in the light of the circumstances under which they were made, not misleading or no other facts the omission of which would, in the context of the issue and offering of the Preference Shares, make any such statement, opinion or intention misleading and (v) all reasonable enquiries have been made by the Issuer and the Parent to ascertain such facts and to verify the accuracy of all such information and statements in this Offering Circular.

This Offering Circular has been prepared by the Issuer and the Parent solely for use in connection with the proposed offering of the Preference Shares and giving of the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees described in this Offering Circular. The distribution of this Offering Circular, the offering of the Preference Shares and the giving of the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees in certain jurisdictions may be restricted by law. Persons into whose possession this Offering Circular comes are required by the Issuer, the Parent, Merrill Lynch (Asia Pacific) Limited, BOCI Asia Limited, Industrial and Commercial Bank of China (Asia) Limited, ABCI Capital Limited, BOCOM International Securities Limited and CLSA Limited (together, the "**Joint Lead Managers**") to inform themselves about and to observe any such restrictions. No action is being taken to permit a public offering of the Preference Shares and giving of the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees or the distribution of this document in any jurisdiction where action would be required for such purposes. There are restrictions on the offer and sale of the Preference Shares and the giving of the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees, and the circulation of documents relating thereto, in certain jurisdictions and to persons connected therewith. For a description of certain further restrictions on offers, sales and resales of the Preference Shares and distribution of this Offering Circular, see "*Subscription and Sale*".

No person has been or is authorised to give any information or to make any representation not contained in or not consistent with this Offering Circular or any information supplied by the Issuer, the Parent or such other information as is in the public domain and, if given or made, such information or representation should not be relied upon as having been authorised by the Issuer, the Parent or the Joint Lead Managers, the Trustee or the Agents (as defined in "*Terms and Conditions of the Preference Shares*") or any of their respective affiliates, officers, employees, agents, representatives, directors or advisers. Neither the delivery of this Offering Circular nor any offering, sale or delivery made in connection with the issue of the Preference Shares shall, under any circumstances, constitute a representation that there has been no change or development reasonably likely to involve a change in the affairs of the Issuer, the Parent or the Group since the date hereof or create any implication that the information contained herein is correct as at any date subsequent to the date hereof.

This Offering Circular is being furnished by the Issuer and the Parent in connection with the offering of the Preference Shares and is exempt from registration under the Securities Act solely for the purpose of enabling a prospective investor to consider purchasing the Preference Shares. Investors must not use this Offering Circular for any other purpose, make copies of any part of this Offering Circular or give a copy of it to any other person, or disclose any information in this Offering Circular to any other person. The information contained in this Offering Circular has been provided by the Issuer and the Parent and other sources identified in this Offering Circular. Any reproduction or distribution of this Offering Circular, in whole or in part, and any disclosure of its contents or use of any information herein for any purpose other than the consideration of an investment in the Preference Shares offered by this Offering Circular is prohibited. By accepting delivery of this Offering Circular each investor is deemed to have agreed to these restrictions.

None of the Joint Lead Managers, the Trustee or the Agents or any of their respective affiliates, officers, employees, agents, representatives, directors or advisers has separately verified the information contained in this Offering Circular. None of the Joint Lead Managers, the Trustee or the Agents, or any director, officer, employee, agent, adviser, representative or affiliate of any such person, makes any representation, warranty or undertaking, express or implied, or accepts any responsibility or liability, with respect to the accuracy or completeness of any of the information contained in this Offering Circular or any information supplied in connection with the Preference Shares, the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees. Each person receiving this Offering Circular acknowledges that such person has not relied on the Joint Lead Managers, the Trustee or the Agents, or any of their respective directors, officers, employees, agents, advisers, representatives or affiliates, in connection with its investigation of the accuracy of such information or its investment decision, and each such person must rely on its own examination of the Issuer, the Parent and the Group and the merit and risks involved in investing in the Preference Shares. See "*Risk Factors*" below for a discussion of certain factors to be considered in connection with an investment in the Preference Shares.

To the fullest extent permitted by law, none of the Joint Lead Managers, the Trustee or the Agents, or any director, officer, employee, agent, adviser, representative or affiliate of any such person, accepts any responsibility for the contents of this Offering Circular and assumes no responsibility for the contents, accuracy, completeness or sufficiency of any such information or for any other statement made or purported to be made by the Joint Lead Managers, the Trustee or any Agent, or any director, officer, employee, agent, adviser, representative or affiliate of any such person, or on its behalf, in connection with the Issuer, the Parent, the Group, the issue and offering of the Preference Shares or the giving of the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees. Each of the Joint Lead Managers, the Trustee and the Agents, and their respective directors, officers, employees, agents, advisers, representatives and affiliates, accordingly disclaims all and any liability whether arising in tort or contract or otherwise which it might otherwise have in respect of this Offering Circular or any such

statement. None of the Joint Lead Managers, the Trustee or the Agents, or any director, officer, employee, agent, adviser, representative or affiliate of any such person, undertakes to review the financial condition or affairs of the Issuer, the Parent or the Group during the life of the arrangements contemplated by this Offering Circular nor to advise any investor or prospective investor in the Preference Shares of any information coming to the attention of the Joint Lead Managers, the Trustee or the Agents, or any director, officer, employee, agent, adviser, representative or affiliate of any such person.

This Offering Circular may not be used for the purpose of an offer to, or solicitation by anyone in any jurisdiction or in any circumstances in which such offer or solicitation is not authorised or to any person to whom it is unlawful to make such an offer or solicitation. This Offering Circular does not constitute an offer or an invitation by or on behalf of the Issuer, the Parent, the Joint Lead Managers, the Trustee or the Agents or any of their respective affiliates, officers, employees, agents, representatives, directors or advisers to subscribe for or to purchase the Preference Shares, is not intended to provide the basis of any credit or other evaluation, and should not be considered as a recommendation by the Issuer, the Parent, the Joint Lead Managers, the Trustee or the Agents, or any director, officer, employee, agent, adviser, representative or affiliate of any such person, that any recipient of this Offering Circular should subscribe for or purchase any Preference Shares. Each recipient of this Offering Circular shall be taken to have made its own investigation and appraisal of the condition (financial or otherwise) of the Issuer and the Parent with its own tax, legal and business advisers as it deems necessary.

Except as otherwise indicated in this Offering Circular, all non-Group specific statistics and data relating to the industry or to the economic development of certain regions within the People's Republic of China have been extracted or derived from publicly available information and industry publications. Such information has not been independently verified by the Issuer, the Parent, the Joint Lead Managers, the Trustee or the Agents, or by their respective directors, officers, employees, agents, advisers, representatives or affiliates, and none of the Issuer, the Parent, the Joint Lead Managers, the Trustee or the Agents, or their respective directors, officers, employees, agents, advisers, representatives or affiliates, makes any representation as to the correctness, accuracy or completeness of that information. In addition, third-party information providers who contributed to the publicly available information and industry publications may have obtained information from market participants and such information may not have been independently verified.

PRIIPs REGULATION/PROHIBITION OF SALES TO EEA RETAIL INVESTORS – The Preference Shares are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area ("**EEA**"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "**MiFID II**"); or (ii) a customer within the meaning of Directive (EU) 2016/97 (the "**Insurance Distribution Directive**"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II. Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the "**PRIIPs Regulation**") for offering or selling the Preference Shares or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Preference Shares or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

UK PRIIPs REGULATION/PROHIBITION OF SALES TO UK RETAIL INVESTORS – The Preference Shares are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the United Kingdom (the "**UK**"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client, as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 (the "**EUWA**"); (ii) a customer within the meaning of the

provisions of the Financial Services and Markets Act 2000 (the "**FSMA**") and any rules or regulations made under the FSMA to implement the Insurance Distribution Directive, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA. Consequently no key information document required by the PRIIPs Regulation as it forms part of domestic law by virtue of the EUWA (the "**UK PRIIPs Regulation**") for offering or selling the Preference Shares or otherwise making them available to retail investors in the UK has been prepared and therefore offering or selling the Preference Shares or otherwise making them available to any retail investor in the UK may be unlawful under the UK PRIIPs Regulation.

Singapore Securities and Futures Act Product Classification – Solely for the purposes of its obligations pursuant to sections 309B (1)(a) and 309B (1)(c) of the Securities and Futures Act (Chapter 289 of Singapore) (the "**SFA**"), the Issuer has determined, and hereby notifies all relevant persons (as defined in Section 309A of the SFA) that the Preference Shares are "prescribed capital markets products" (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018 of Singapore).

IN CONNECTION WITH THE ISSUE OF THE PREFERENCE SHARES, ANY OF THE JOINT LEAD MANAGERS APPOINTED AND ACTING AS STABILISATION MANAGER (OR PERSONS ACTING ON BEHALF OF ANY OF THEM) (THE "STABILISATION MANAGER") MAY, TO THE EXTENT PERMITTED BY APPLICABLE LAWS AND DIRECTIVES, OVER-ALLOT PREFERENCE SHARES OR EFFECT TRANSACTIONS WITH A VIEW TO SUPPORTING THE MARKET PRICE OF THE PREFERENCE SHARES AT A LEVEL HIGHER THAN THAT WHICH MIGHT OTHERWISE PREVAIL. HOWEVER, THERE IS NO ASSURANCE THAT THE STABILISATION MANAGER (OR PERSONS ACTING ON BEHALF OF A STABILISATION MANAGER) WILL UNDERTAKE STABILISATION ACTION. ANY STABILISATION ACTION MAY BEGIN ON OR AFTER THE DATE ON WHICH ADEQUATE PUBLIC DISCLOSURE OF THE TERMS OF THE OFFER OF THE PREFERENCE SHARES IS MADE AND, IF BEGUN, MAY BE ENDED AT ANY TIME, BUT IT MUST END NO LATER THAN THE EARLIER OF 30 DAYS AFTER THE ISSUE DATE OF THE PREFERENCE SHARES AND 60 DAYS AFTER THE DATE OF THE ALLOTMENT OF THE PREFERENCE SHARES. ANY STABILISATION ACTION OR OVER-ALLOTMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL APPLICABLE LAWS AND RULES.

This Offering Circular is provided solely for the purpose of enabling the recipient to consider purchasing the Preference Shares. The investors or prospective investors should read this Offering Circular carefully before making a decision regarding whether or not to purchase the Preference Shares. This Offering Circular cannot be used for any other purpose and any information in this Offering Circular cannot be disclosed to any other person. This Offering Circular is personal to each prospective investor and does not constitute an offer to any other person or to the public generally to purchase or otherwise acquire the Preference Shares.

This Offering Circular summarises certain material documents and other information, and the Issuer, the Parent and the Joint Lead Managers refer the recipient of this Offering Circular to them for a more complete understanding of what is contained in this Offering Circular. In making an investment decision, the prospective investor must rely on its own judgment and examination of the Issuer and the Parent and the Terms and Conditions of the Preference Shares including the merits and risks involved. See "*Risk Factors*" for a discussion of certain factors to be considered in connection with an investment in the Preference Shares. None of the Issuer, the Parent, the Joint Lead Managers, the Trustee or the Agents, or any of their respective directors, officers, employees, agents, advisers, representatives or affiliates, are making any representations regarding the legality of an investment in the Preference Shares under any law or regulation. The recipient of this Offering Circular should not consider any information in this Offering Circular to be legal, business or tax advice. Any investor or prospective investor should consult his/her/its own attorney, business adviser and tax adviser for legal, business and tax advice regarding an investment in the Preference Shares.

WARNING

The contents of this Offering Circular have not been reviewed by any regulatory authority in the Cayman Islands, the People's Republic of China, Hong Kong or elsewhere. Investors are advised to exercise caution in relation to the offer. If any investor is in any doubt about any of the contents of this document, that investor should obtain independent professional advice.

PRESENTATION OF FINANCIAL INFORMATION

This Offering Circular contains the audited consolidated financial information of the Parent as at and for the years ended 31 December 2018, 2019 and 2020, and the unaudited and unreviewed consolidated financial information of the Parent as at and for the six months ended 30 June 2020 and 2021.

The audited consolidated financial information of the Parent as at and for the years ended 31 December 2018, 2019 and 2020 are derived from the Parent's consolidated financial statements for the years ended 31 December 2019 and 2020 (the "**Parent's Consolidated Audited Financial Statements**"), which have been audited by BDO Shu Lun Pan Certified Public Accountants ("**BDO**").

The unaudited and unreviewed consolidated financial information of the Parent as at and for the six months ended 30 June 2020 and 2021 is derived from the Parent's financial statements as at and for the six months ended 30 June 2021 published by the Parent in the PRC (the "**Parent's Consolidated Half-Year Financials**", and together with the Parent's Consolidated Audited Financial Statements, the "**Parent's Consolidated Financial Statements**").

The Parent issues from time to time corporate bonds and short-term financing bills in the domestic capital markets in the PRC. According to applicable PRC securities regulations on debt capital markets, currently the Parent needs to publish its quarterly financial information by the end of April and October each year, half year financial information by the end of August each year and annual financial information by the end of April each year to satisfy its continuing disclosure obligations relating to its corporate bonds and short-term financing bills. The quarterly and half year financial information published during ordinary course by the Parent in the PRC is normally derived from the Group's management accounts and has not been audited or reviewed by independent auditors. As such, this financial information published in the PRC should not be referred to or relied upon by potential purchasers to provide the same quality of information associated with any audited information.

The Parent's Consolidated Financial Statements were prepared and presented in accordance with the Accounting Standards for Business Enterprises in China ("**PRC GAAP**"). The Parent has not prepared its financial statements or consolidated financial statements, as the case may be, in accordance with International Financial Reporting Standards ("**IFRS**"). As advised by BDO, there are no material differences between PRC GAAP and the IFRS with respect to the determination of the Group's financial position.

The Parent's Consolidated Half-Year Financials have not been reviewed or audited by BDO or any other person. Consequently, the Parent's Consolidated Half-Year Financials should not be relied upon by investors to provide the same quality of information associated with information that has been subject to an audit or review. None of the Joint Lead Managers or any of their respective affiliates, directors, officers, employees, agents, representatives or advisers makes any representation or warranty, express or implied, regarding the accuracy or sufficiency of such consolidated financial statements for an assessment of, and potential investors must exercise caution when using such data to evaluate, the Group's financial condition and results of operations. The Parent's Consolidated Half-Year Financials should not be taken as an indication of the expected financial condition or results of operations of the Group for the full financial year ending 31 December 2021. See *"Risk Factors – Risks Relating to the Group's Business and the Power Industry – The interim financial information of the Parent contained in this Offering Circular have not been reviewed or audited"*.

The Parent's Consolidated Half-Year Financial Statements have been prepared in Chinese only and English translations (collectively, the "**Financial Statements Translation**") have been prepared and included in this Offering Circular for reference only. None of the Joint Lead Managers or their respective affiliates, directors, employees and advisers has independently verified or checked the accuracy of the Financial Statements Translation and can give no assurance that the information contained in the Financial Statements Translation is accurate, truthful or complete.

This Offering Circular shall not be read or construed with reference to any other financial information of the Parent that has not been disclosed in this Offering Circular. The Joint Lead Managers, the Trustee, any Agent, or any director, officer, employee, agent, adviser, representative or affiliate of any such person take no responsibility for any other financial information of the Parent that has not been disclosed in this Offering Circular.

CERTAIN DEFINED TERMS AND CONVENTIONS

This Offering Circular has been prepared using a number of conventions, which investors should consider when reading the information contained herein. Unless indicated otherwise, in this Offering Circular all references to (i) the "**Issuer**" are to SPIC Preferred Company No.1 Ltd. 國家電投優先股有限公司1號, (ii) the "**Parent**" or the "**Company**" are to State Power Investment Corporation Limited and (iii) the "**Group**" are to the Parent and its direct and indirect subsidiaries, taken as a whole, unless the context otherwise indicates. Unless otherwise specified or the context otherwise requires, references to "**Brazil**" are to the Federative Republic of Brazil, to "**Hong Kong**" are to the Hong Kong Special Administrative Region of the People's Republic of China, to the "**PRC**" or "**China**" are to the People's Republic of China, for the purpose of this Offering Circular only, excluding Hong Kong, the Macau Special Administrative Region of the PRC and Taiwan, to the "**U.S.**" or "**United States**" are to the United States of America, to "**U.S. dollars**" and "**U.S.$**" are to the lawful currency of the United States, to "**Renminbi**" or "**RMB**" are to the lawful currency of the PRC, and to "**euro**" are to the currency introduced at the start of the third stage of European economic and monetary union pursuant to the Treaty on the Functioning of the European Union, as amended.

Unless otherwise stated in this Offering Circular, all translations from Renminbi into U.S. dollars were made at the rate of RMB6.5250 to U.S.$1.00, the noon buying rate in New York City for cable transfers payable in Renminbi on 31 December 2020, as set forth in the weekly H.10 statistical release of the Federal Reserve Board of the Federal Reserve Bank of New York). All such translations in this Offering Circular are provided solely for investors' convenience and no representation is made that the amounts referred to herein have been, could have been or could be converted into U.S. dollars or Renminbi, or *vice versa*, at any particular rate or at all. For further information relating to the exchange rates, see "*Exchange Rate Information*".

Certain monetary amounts included in this Offering Circular have been subject to rounding adjustments. Accordingly, figures shown as totals in certain tables may not be an arithmetic aggregation of the individual items and actual numbers may differ from those contained herein due to rounding.

The English names of the PRC nationals, entities, departments, facilities, laws, regulations, certificates, titles and the like are translations of their Chinese names and are included for identification purpose only. In the event of any inconsistency, the Chinese name prevails.

FORWARD-LOOKING STATEMENTS

This Offering Circular contains "forward-looking statements". The forward-looking statements contain information regarding, among other things, the Group's future operations, performance, financial condition, expansion plans and business strategy. These forward-looking statements are based on the Group's current expectations and projections about future events. Although the Group believes that these expectations and projections are reasonable, such forward-looking statements are inherently subject to risks, uncertainties and assumptions, including, among other things:

- general economic and political conditions in the PRC and globally;
- risks associated with business activities in the PRC, including but not limited to the PRC regulatory environment, and in particular, PRC regulation of the power industry as well as environmental regulation and employee safety and labour protection regulations;
- risks associated with the power generation sector in the PRC and globally;
- the Group's business strategy and plan of operation;
- the Group's capital expenditure plans and ability to carry out those plans;
- the Group's ability to control its costs;
- fluctuations in interest rates and the availability of credit;
- operational hazards customary to the power generation industry including but not limited to equipment failures, natural disasters, environmental or industrial accidents, construction delays, labour disputes and other business interruptions;
- supplier issues including but not limited to variations in price, available quantity or delivery of coal;
- various business opportunities that the Group may pursue; and
- those other risks identified in the "*Risk Factors*" section of this Offering Circular.

The words "believe", "expect", "anticipate", "estimate", "intend", "plan", "seek" and similar words identify forward-looking statements. However, these words are not the exclusive means of identifying forward-looking statements. All statements regarding expected financial condition and results of operations, business plans and prospects are forward-looking statements. These forward-looking statements include but are not limited to statements as to the business strategy, revenue and profitability, planned projects and other matters as they relate to the Issuer or the Company discussed in this Offering Circular regarding matters that are not historical fact. Although the Group believes that the expectations reflected in the forward-looking statements are reasonable, the Group can give no assurance that such expectations will prove correct. Additional factors that could cause actual results, performance or achievements to differ materially include, but are not limited to, those discussed in "*Risk Factors*" below and elsewhere in this Offering Circular. Each of the Issuer and the Company cautions investors not to place undue reliance on these forward-looking statements which reflect their managements' view only as at the date of this Offering Circular. None of the Issuer, the Company or the Group undertakes any obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. In light of the foregoing and the risks, uncertainties and assumptions in "*Risk Factors*" and elsewhere in this Offering Circular, the forward-looking statements in this Offering Circular are not and should not be construed as assurances of future performance and the Issuer's and the Company's actual results could differ materially from those anticipated in those forward-looking statements.

"**CAP1400**"	a third-generation nuclear power technology with the independent intellectual property rights, also known as "Guohe One".
"**CDM**"	The Clean Development Mechanism, an arrangement under the Kyoto Protocol allowing industrialised countries to invest in projects that reduce greenhouse gas emissions in developing countries in order to earn emission credits.
"**CPI**"	China Power Investment Corporation (中國電力投資集團).
"**CSRC**"	China Securities Regulatory Commission (中國證券監督管理委員會).
"**demand**"	For an integrated power system, the amount of power demanded by customers of energy at any point of time.
"**dispatch**"	The schedule of production for all the generating units on a power system, generally varied at short notice to match power production requirements.
"**excess output**"	The amount by which the total output of a power plant in a particular year exceeds its planned output for such year.
"**Fourteenth Five-Year Plan**"	The Fourteenth Five-Year Plan Guidelines for National Economic and Social Development of the PRC (《中華人民共和國國民經濟和社會發展第十四個五年規劃綱要》).
"**gross power generation**"	For a specified period, the total amount of electricity produced by a power plant in that period, including auxiliary electricity and electricity generated during the construction and testing period.
"**GW**"	Unit of energy, gigawatt. 1 GW = 1,000 MW.
"**GWh**"	Unit of energy, gigawatt-hour. 1 GWh = 1 million KWh. GWh is typically used as a measure for the annual energy production of large power plants.
"**IFRS**"	The International Financial Reporting Standards, which include standards and interpretations promulgated by the International Accounting Standards Board (IASB), and the International Accounting Standards (IAS) and interpretations issued by the International Accounting Standards Committee (IASC).
"**installed capacity**"	The manufacturers' rated power output of a generating unit or a power plant, usually denominated in MW.

"**KW**"	Unit of energy, kilowatt. 1 KW = 1,000 watts.
"**KWh**"	Unit of energy, kilowatt-hour. The standard unit of energy used in the electric power industry. One kilowatt-hour is the amount of energy that would be produced by a power generator producing one thousand watts for one hour.
"**MW**"	Unit of energy, megawatt. 1 MW = 1,000 KW. The capacity of a power project is generally expressed in MW.
"**on-grid tariff**"	The price of electricity per KWh for which a power project can sell the electricity it generates to the power grid companies. On-grid tariff in China includes (1) benchmark or approved on-grid tariff; (2) tariff premiums to compensate the costs of transmission lines that power companies construct and own (if applicable); and/or (3) discretionary tariff subsidies granted by the local government (if applicable).
"**planned output**"	The actual amount of power sold by a power plant in accordance with annually determined target gross power generation level in a particular year, which equals total output less excess output and output subject to competitive bidding.
"**power generation**"	Electricity generated by power plants (generating units) during the reporting period, or "power generation". It refers to the consumed generated electricity produced by generating units with power energy being processed and transferred, or the product of actual consumed electricity generated by generating units and actual operation hours of generating units.
"**PRC Government**"	The government of the PRC, including all governmental subdivisions (including provincial, municipal and other regional or local government entities).
"**renewable energy**"	Sustainable sources that are regenerative or, for all practical purposes, cannot be depleted, such as wind, water or sunlight.
"**SASAC**"	State-owned Assets Supervision and Administration Commission of the State Council of the PRC (國務院國有資產監督管理委員).
"**SNPTC**"	State Nuclear Power Technology Corporation.
"**SPIC**"	State Power Investment Corporation.
"**standard coal**"	Coal with an energy content of 7,000 Kcal/kg.

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SUMMARY

OVERVIEW

As a large integrated energy conglomerate, the Group is one of the top five power generation groups in China (being China Huaneng Group Corporation, China Datang Corporation, China Huadian Corporation, China Energy Investment Group, and the Group, collectively the "**top five power groups**") and is the first one with qualifications to hold, develop, construct and operate nuclear power plants among the top five power groups in China. The Group is currently one of the three nuclear development and construction operators in the PRC. The Group has diversified power assets across thermal power, nuclear power, hydropower, wind power, PV power and other non-nuclear clean energies. The Group is also the largest PV power generation group and the second largest wind power generation group worldwide and is also ranked number one in its proportion of clean energy production among the top five power groups as at 31 December 2020. The Group ranked 293rd among the Fortune Global 500 in 2021, having been listed in the Fortune Global 500 for ten consecutive years, with its businesses covering 46 countries and regions. The Group is the leading enterprise for two National Science and Technology Major Projects, namely the large advanced Pressurised Water Reactor nuclear power plant and the heavy-duty gas turbine project, and is the leading group for establishing the Energy Industry Internet.

At the end of 2018, the Group is also a pilot state capital investment enterprise. State capital investment enterprise is a comprehensive reform pilot, covering various aspects of reforms of state-owned enterprises and state-owned assets. Pilot enterprise can take the lead in terms of authorisation and decentralisation, organisational structure, and business models, so as to better release reform dividends and stimulate development vitality. In the future, the Company aims to further (i) optimise the industrial layout, improve the operating mechanism and innovate the development model, (ii) strengthen the functions of the group headquarters in strategic leadership, capital operation, risk control and compliance, audit and supervision, and comprehensively enhance the group's management and control capabilities, and (iii) enhance the motivation and vitality of high-quality development, improve resource allocation efficiency and international management level in open cooperation, and make every effort to promote the construction of a world-class clean energy enterprise with global competitiveness.

Apart from its power generation business, the Group also has ancillary businesses such as heating, coal and aluminium which integrate with the power generation business synergistically. The Group designs, develops, manages and operates power plants, and sells the electricity generated by its power plants to local grid companies. As at 31 December 2018, 2019 and 2020 and 30 June 2021, the Group's total controllable installed capacity was 140.2 GW, 150.9 GW, 176.3 GW and 182.2 GW, respectively. As at 31 December 2018, 2019 and 2020 and 30 June 2021, the Group's total controllable installed capacity of clean and low carbon energy represented, 48.9 per cent., 50.5 per cent, 56.1 per cent. and 57.5 per cent. of its total controllable installed capacity.

The Group was formed pursuant to the merger between CPI and State Nuclear Power Technology Corporation ("**SNPTC**"), whereby SNPTC was consolidated into CPI and became a subsidiary of CPI (the "**Merger**"). CPI was established in 2002 through the reorganisation of the former State Power Corporation of China under the reform of China's power system. CPI was one of the five largest power generation companies in China and was one of the three major operators of nuclear power investment projects, with strong assets and qualifications and the resources to operate nuclear power projects. SNPTC was established in 2007. It was the key entity to implementing China's self-developed third-generation nuclear power technology, and the leading unit in executing major nuclear science and technology projects in China, with strong research and development capabilities in both nuclear and related conventional power areas. In May 2015, SNPTC merged into CPI and was renamed as State Power Investment Corporation.

The Merger has integrated the advantages of CPI and SNPTC on operation and technology innovation through realising the optimisation of resources across the upstream and downstream industry chain, and promoting automation and industrialisation development of third-generation nuclear power technology. On 29 December 2017, the Company was restructured as a wholly state-owned limited company and renamed as State Power Investment Corporation Limited. In 2020, the Company has 61 secondary subsidiary entities, including five listed in China's mainland, one listed on the Hong Kong Stock Exchange and two in the National Equities Exchange and Quotations (NEEQ).

In line with its internationalisation strategy, the Group is actively expanding in the overseas power generation market, aiming to become an international energy conglomerate providing services across the globe. The Group's overseas projects are located in 46 countries and regions including Australia, Brazil, India, Malta, South Africa, Turkey, Japan and Pakistan. For example, in 2017, the Company's subsidiary UHE São Simão Energia S.A. ("**UHE São Simão**") won the bid for the 30-year concession right of the São Simão Hydropower Station in Brazil with total controllable installed capacity of 1,710 MW. The Group believes that its comprehensive capabilities in the development and management process of power projects enable it to compete in its selected international markets.

As at 31 December 2020, the Company had registered capital of RMB35 billion and the Group had total assets of RMB1,324.1 billion. For the three years ended 31 December 2018, 2019 and 2020, the Group recorded revenue of RMB226.4 billion, RMB272.2 billion and RMB278.2 billion, respectively, and net profit of RMB6.7 billion, RMB10.5 billion and RMB13.8 billion, respectively.

COMPETITIVE STRENGTHS

The Group believes that its leading position in the power industry is underpinned by the following principal strengths:

- Steady industry leadership, focus on clean energy development and comprehensive diversified power structure advantages

- Prominent nuclear power technology leader in China with core competitive advantages throughout the whole nuclear power industry chain

- Industry-leading energy sci-tech innovation capacity to maintain its innovation-based leadership

- Strong integrated synergies along the industrial chain, which significantly increases operating efficiency

- Extensive financing channels and low-cost financing capability

- Efficient modern management system, sound risk control, and safe and reliable production and operation

- Experienced, professional and motivated management team supported by a highly skilled professional talent team

BUSINESS STRATEGIES

The Group aims to become a world-leading clean energy enterprise with global competitive edge in the fields of clean energy supply and integration of energy ecosystems by innovating in advanced energy technologies and quality engineering service. The Group will strive to achieve this aim through the promotion of coordinated industrial and regional development and international development and the building of world-renowned brand name, and by capitalising on the revolutionary energy trends of the world as well as advantages offered by the modern Chinese state-owned enterprise system. The Group strategically position itself as an advanced energy technology developer, a clean and low-carbon energy supplier and an energy ecosystem integrator. The Group intends to complete the transformation to a modern clean energy enterprise and state-owned capital investment company, to accelerate overseas development and to operate the world-leading PV business. The Group's goal is to become the first state-owned enterprise to achieve the peaking of carbon dioxide emissions by 2023, a clean energy enterprise with international influence by 2025 and a world-leading clean energy enterprise with global competitive edge by 2035.

The Group has the following business vision:

- *Innovation*: the Group aims to take green and low-carbon energy as the main direction, turning technological advantages into economic advantages.

- *Coordination*: the Group aims to adhere to a balanced growth between capacity, segment and region.

- *Going green*: the Group aims to promote energy green revolution, focus on the main power industry, focus on clean energy, and integrate the concept of ecological civilisation into enterprise development.

- *Openness*: the Group aims to further improve both domestic and international cooperation.

- *Sharing*: the Group aims to reinforce the belief that talent is the Group's first resource and promotes the common development of employees, enterprises and the nation at large.

- *Industrial finance*: the Group aims to use the capital to effectively support the main business.

The Group's strategies include to:

- Continue to strengthen the Group's leading position in the PRC power sector.

- Continue to strengthen the development of its clean energy power business.

- Accelerate the pace of developing nuclear power business.

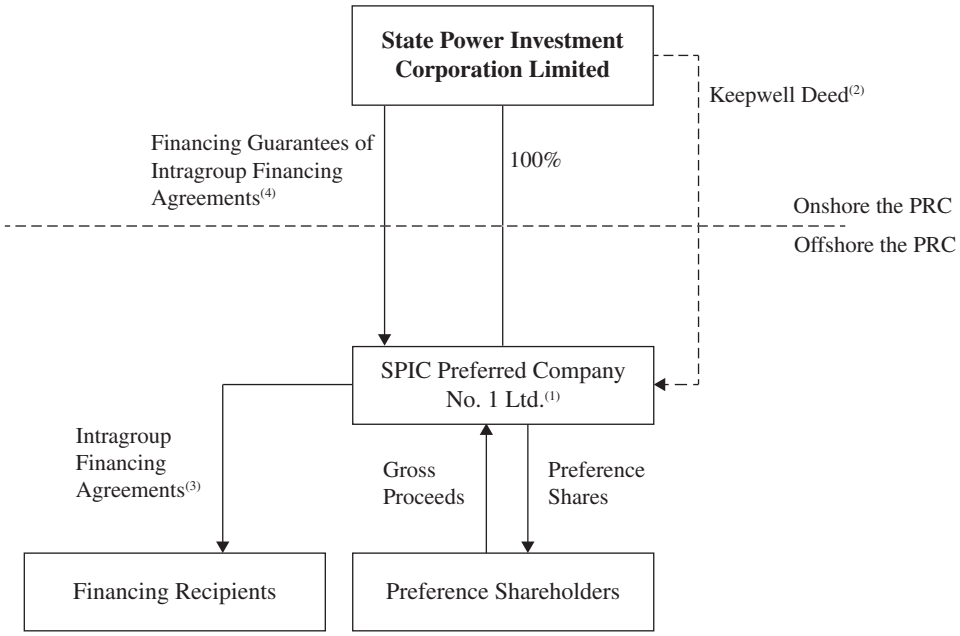
- Accelerate the pace of and being dedicated to developing overseas markets.

- Continue to invest in research and development and technology innovation.

OFFERING STRUCTURE

The following is a description of the structure of the Offering, which should be read in conjunction with the sections entitled "Risk Factors", "Terms and Conditions of the Preference Shares", "Description of the Intragroup Financing Agreements and the Financing Guarantees" and "Description of the Keepwell Deed".

The following chart illustrates the structure of the Offering, the flow of funds and corresponding credit support at the time of the Issue Date.



Notes:

(1) The Issuer, being an indirectly wholly-owned subsidiary of the Parent (which is held through SPIC International Finance (Hong Kong) Company Limited (國家電投香港財資管理有限公司), a wholly-owned subsidiary of the Parent ("**SPIC International Finance Hong Kong**")), will issue the Preference Shares to the Preference Shareholders.

(2) The Parent intends to assist the Issuer in meeting its obligations under the Preference Shares and has entered into the Keepwell Deed, whereby the Parent has provided certain undertakings in respect of the Issuer, the Preference Shares, the Intragroup Financing Agreements and the Financing Guarantees.

(3) The Issuer will on-lend the gross proceeds, without any deduction, from the offering of the Preference Shares to the Financing Recipients in the form of Intragroup Financing Agreements, which are senior perpetual financing. The Financing Recipients are subsidiaries of the Parent, incorporated outside of the PRC. The amounts payable under the Intragroup Financing Agreements by the Financing Recipients to the Issuer, as the Financing Provider, will at all times be sufficient to cover the Issuer's costs of funding and ensure the Issuer has sufficient distributable reserves to meet its obligations under the Preference Shares.

(4) The Parent will guarantee the payment of all sums expressed to be payable from time to time by each Financing Recipient in respect of each Intragroup Financing Agreement, by way of senior financing guarantees.

(5) The Intragroup Financing Agreements and the Financing Guarantees constitute senior and unsecured obligations of the Financing Recipients and the Parent, respectively. The arrangement of payment of principal amount and distribution by each Financing Recipient will be similar to the Liquidation Preference and Dividend payment arrangement under the Preference Shares.

As shown above, the Issuer proposes to issue the Preference Shares pursuant to the articles of association of the Issuer (as amended from time to time, the "**Articles of Association**") on the Issue Date.

The Issuer intends to enter into the Intragroup Financing Agreements, being senior perpetual financing, each with the Parent and a subsidiary of the Parent (each of such subsidiary, a "**Financing Recipient**") on or around the Issue Date, pursuant to which the Issuer as financing provider (the "**Financing Provider**") will, subject to, and in accordance with, the provisions of the Intragroup Financing Agreements, on-lend the entire gross proceeds from the issue of the Preference Shares, without any deduction, to the Financing Recipients. Each Financing is perpetual and has no maturity date. The arrangement of payment of principal amount and distribution by each Financing Recipient will be similar to the Liquidation Preference and Dividend payment arrangement under the Preference Shares.

The due payment of all sums expressed to be payable by the Financing Recipients to the Financing Provider from time to time under the Intragroup Financing Agreements will be unconditionally and irrevocably guaranteed by the Parent subject to, and in accordance with, the provisions of the Financing Guarantees entered into between the Issuer and the Parent on or around the Issue Date.

If the Financing Provider intends to redeem the Preference Shares, the Financing Provider shall inform the Financing Recipients and each Financing Recipient may choose to (but has no obligation to) redeem in whole but not in part the Financing on any date prior to the date on which the Financing Provider intends to redeem the Preference Shares, together with any distribution (including any arrears of distribution and any additional distribution amounts) accrued but unpaid to but excluding the date fixed for redemption of the relevant Financing.

Although the Parent will not guarantee the Preference Shares directly, and the Trustee will not receive the benefit of the Intragroup Financing Agreements and Financing Guarantees directly, upon the (i) Winding-Up of any Financing Recipient or the Parent and/or (ii) any amount under any Financing and/or any Financing Guarantee payable by any Financing Recipient or the Parent to the Financing Provider not being paid when due or (as the case may be) within any applicable grace period, the Preference Shareholders and the Trustee may through the Financing Provider enforce rights under each Financing and Financing Guarantees on behalf of the Financing Provider to receive payments due to the Financing Provider under each Financing and the Financing Guarantees. The Issuer will not carry on any business activity and not incur or have outstanding any indebtedness for moneys borrowed or raised (whether senior or subordinated), other than (a) borrowing activities and activities in connection with the issue of the Preference Shares or the entering into each Financing and the Financing Guarantees and any other activities reasonably incidental thereto; and (b) the entry into any shareholders' loan that ranks or is expressed to rank, by their terms or by operation of law, in right of payment behind the claims of the Preference Shareholders.

Each of the Financing Provider, the Financing Recipients and the Parent agrees and acknowledges pursuant to each Intragroup Financing Agreement that:

- none of the Financing Provider, the Financing Recipients and the Parent may amend, supplement, vary or waive any provision of the Intragroup Financing Agreements, exercise any right to rescind, cancel or terminate the Intragroup Financing Agreements, transfer or assign any right of the Intragroup Financing Agreements or waive or consent to any breach or proposed breach of any provision of the Intragroup Financing Agreements, except for any such action by the Financing Provider that is not materially prejudicial to the interests of the Financing Provider and/or any class of shareholders of the Financing Provider;

- neither the Financing Provider nor the Parent may amend, supplement, vary or waive any provision of the Financing Guarantees, exercise any right to rescind, cancel or terminate the Financing Guarantees, transfer or assign any right of the Financing Guarantees or waive or consent to any breach or proposed breach of any provision of the Financing Guarantees, except for any such action by the Financing Provider that is not prejudicial to the interests of the Financing Provider and/or any class of shareholders of the Financing Provider;

- the Financing Provider has pursuant to the Trust Deed granted an irrevocable power of attorney to the Trustee and its custodian, agent, delegate or nominee (each, an "**Appointee**") to, in such manner as the Trustee or the Appointee thinks fit, enforce the Financing Provider's rights under the Intragroup Financing Agreements and the Financing Guarantees on behalf of the Financing Provider in the event of (i) a Winding-Up of any Financing Recipient or the Parent; and/or (ii) any amount under any Intragroup Financing Agreement and/or any Financing Guarantee payable by any Financing Recipient or the Parent to the Financing Provider not being paid when due or (as the case may be) within any applicable grace period;

- any amounts received by the Financing Provider pursuant to the Intragroup Financing Agreements or the Financing Guarantee (other than any Surplus (as defined in the Terms and Conditions of the Preference Shares)) shall not be used for any purposes other than payment to the holders of the Preference Shares or redemption of the Preference Shares or to cover all amounts referred to in Clause 5.1(vi) of the Keepwell Deed; and

- the Financing Provider shall not consent to the exercise or claim of any right of set-off or counterclaim by any Financing Recipient or the Parent in respect of any amounts due and payable to the Financing Provider under the Intragroup Financing Agreements or the Financing Guarantees respectively.

For further details on the key terms of the Preference Shares, the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees, please refer to the sections entitled "*Terms and Conditions of the Preference Shares*", "*Description of the Intragroup Financing Agreements and the Financing Guarantees*" and "*Description of the Keepwell Deed*".

THE OFFERING

The following summary contains some basic information about the Preference Shares. Some of the terms described below are subject to important limitations and exceptions. Words and expressions defined in "Terms and Conditions of the Preference Shares" shall have the same meanings in this summary. For a more complete description of the terms and conditions of the Preference Shares, see "Terms and Conditions of the Preference Shares".

Issuer	SPIC Preferred Company No.1 Ltd. 國家電投優先股有限公司1號
Parent	State Power Investment Corporation Limited.
Preference Shares	U.S.$900,000,000 3.38 per cent. Preference Shares.
Keepwell Deed	The Parent intends to assist the Issuer in meeting its obligations under the Preference Shares and has entered into a keepwell deed on or around the Issue Date (the "**Keepwell Deed**") with the Issuer and the Trustee, whereby the Parent has provided certain undertakings in respect of the Issuer, the Preference Shares, the Intragroup Financing Agreements and the Financing Guarantees. Please refer to "*Description of the Keepwell Deed*" for further details.
Intragroup Financing Agreements and Financing Guarantees	The Issuer as financing provider (the "**Financing Provider**") will on-lend the gross proceeds, without any deduction, from the Preference Shares to certain offshore subsidiaries of the Parent (the "**Financing Recipients**"), by way of senior perpetual intragroup financing agreements (each, an "**Intragroup Financing Agreement**"). Payments under the Intragroup Financing Agreements will be guaranteed under senior Financing Guarantees entered into by the Parent. The Intragroup Financing Agreements and the Financing Guarantees constitute senior and unsecured obligations of the Financing Recipients and the Parent, respectively. The arrangement of payment of principal amount and distribution by each Financing Recipient will be similar to the Liquidation Preference and Dividend payment arrangement under the Preference Shares and the amounts payable under the Intragroup Financing Agreements will at all times be sufficient to cover the Issuer's costs of funding and ensure the Issuer has sufficient distributable reserves to meet its obligations under the Preference Shares. Please refer to "*Description of the Intragroup Financing Agreements and the Financing Guarantees*" for further details.
Issue Price	100 per cent.
Form, Authorised Denomination and Title	The Preference Shares will have a par value of U.S.$0.01 each and will be issued as fully paid-up capital in U.S. dollars so that the issuance price of the Preference Shares will be U.S.$1,000 each (the "**Liquidation Preference**"). The Preference Shares will be issued in registered form and issued and transferable only in minimum amounts of U.S.$200,000 (or 200 Preference Shares) and integral multiples of U.S.$1,000 (or 1 Preference Share) in excess thereof (each, an "**Authorised Denomination**").

Issue Date	9 November 2021.
Maturity Date	There is no maturity date.
Use of Proceeds	The entire gross proceeds from the offering of the Preference Shares will be on-lent to the Financing Recipients pursuant to the Intragroup Financing Agreements. See "*Use of Proceeds*".
Status of the Preference Shares	The Preference Shares will constitute direct, unsecured and subordinated obligations of the Issuer which rank *pari passu* and without any preference or priority of payment among themselves. The rights and claims in respect of holders of the Preference Shareholders shall rank: (a) junior to holders of all general unsubordinated liabilities of the Issuer; (b) equally in all respects with each other and without preference or priority of payment among themselves and with the holders of all Parity Obligations (as defined in the Terms and Conditions of the Preference Shares) of the Issuer; and (c) in priority to the holders of all Junior Obligations (as defined in the Terms and Conditions of the Preference Shares) of the Issuer.
Dividend	Subject to Condition 4 of the Terms and Conditions of the Preference Shares, the Preference Shares confer a right to receive dividends and/or distributions (each a "**Dividend**") on its Liquidation Preference from and including the Issue Date at the applicable Dividend Rate (as defined below) in accordance with Condition 4 of the Terms and Conditions of the Preference Shares. Subject to Condition 4 of the Terms and Conditions of the Preference Shares, Dividends shall be payable on the Preference Shares semi-annually in arrear in equal instalments on 9 May and 9 November of each year (each, a "**Dividend Payment Date**").
Dividend Rate	Subject to any increase pursuant to Condition 4.7 of the Terms and Conditions of the Preference Shares, the rate of Dividend ("**Dividend Rate**") applicable to the Preference Shares shall be: (i) from, and including the Issue Date, to, but excluding, 9 November 2024 (the "**First Reset Date**"), 3.38 per cent. per annum (the "**Initial Dividend Rate**"); and (ii) from, and including the First Reset Date, to, but excluding, the Reset Date falling immediately after the First Reset Date, and (b) from, and including, each Reset Date thereafter to, but excluding, the immediately following Reset Date, the Relevant Reset Dividend Rate.

Increase or Decrease in Dividend Rate following occurrence of certain events	Pursuant to Condition 4.7 of the Terms and Conditions of the Preference Shares, upon the occurrence of a Change of Control Event, a Breach of Covenants Event or a Relevant Indebtedness Default Event (each a "**Step-up Event**"), unless (x) an irrevocable notice to redeem the Preference Shares has been given to Preference Shareholders by the Issuer pursuant to Condition 6 of the Terms and Conditions of the Preference Shares by the 30th day following the occurrence of the relevant Step-up Event or (y) in the case of a Step-up Event other than a Change of Control Event, such Step-up Event is remedied by the 30th day following the occurrence of such Step-up Event, the Dividend Rate will increase by 3.00 per cent. per annum with effect from (a) the next Dividend Payment Date or (b) if the date on which the relevant Step-up Event occurs is prior to the most recent preceding Dividend Payment Date, such Dividend Payment Date, **provided that** the maximum aggregate increase in the Dividend Rate pursuant to Condition 4.7 of the Terms and Conditions of the Preference Shares shall not exceed 3.00 per cent. per annum and the Dividend Rate in any case shall not exceed the Maximum Dividend Rate, as further described in "*Terms and Conditions of the Preference Shares – Dividends – Increase or Decrease in Dividend Rate following occurrence of certain events*".
Optional Deferral	The Issuer (a) may, at its sole discretion, elect to defer (in whole or in part) unless a Compulsory Dividend Payment Event has occurred and (b) in the case where any condition set out in Condition 4.4 is not satisfied in respect of any relevant Dividend Period, shall compulsorily defer in whole, any Dividend which is otherwise scheduled to be paid on a Dividend Payment Date to the next Dividend Payment Date by giving notice to the Preference Shareholders (in accordance with Condition 12 of the Terms and Conditions of the Preference Shares) and the Trustee and the Principal Paying Agent in writing not more than 15 Payment Business Days nor less than five Payment Business Days prior to a scheduled Dividend Payment Date. Any partial payment of any Dividend by the Issuer shall be shared by the Preference Shareholders of all outstanding Preference Shares on a *pro rata* basis.

Compulsory Dividend Payment Event	A "**Compulsory Dividend Payment Event**" means circumstances in which during the three-month period ending on the day before the relevant scheduled Dividend Payment Date either or both of the following have occurred: (a) the Issuer has declared or paid any discretionary dividends or discretionary distributions or made any other discretionary payment, or has procured that such discretionary dividend, discretionary distributions or other discretionary payment is made, on any Parity Obligations or Junior Obligations of the Issuer; or (b) the Issuer has at its discretion redeemed, reduced, cancelled, bought-back or otherwise acquired for any consideration any Parity Obligations or Junior Obligations of the Issuer prior to its stated maturity.
No Obligation to Pay	The Issuer shall have no obligation to pay any Dividend (including any Arrears of Dividend and any Additional Dividend Amount) on any Dividend Payment Date if it validly elects to defer in accordance with the Terms and Conditions of the Preference Shares.
Cumulative Deferral	Any Dividend deferred pursuant to the Terms and Conditions of the Preference Shares shall constitute "**Arrears of Dividend**". The Issuer may, at its sole discretion, elect to defer further (in whole or in part), or shall compulsorily defer in whole, in each case in the circumstances set out in Terms and Conditions of the Preference Shares any Arrears of Dividend by complying with the notice requirement applicable to any deferral of an accrued Dividend. The Issuer is not subject to any limit as to the number of times Dividends and Arrears of Dividend can or shall be deferred pursuant to the Terms and Conditions of the Preference Shares except that Condition 4.6(v) of the Terms and Conditions of the Preference Shares shall be complied with until all outstanding Arrears of Dividend and Additional Dividend Amount have been paid in full. Each amount of Arrears of Dividend shall accrue Dividends as if it constituted the Liquidation Preference of the Preference Shares at the prevailing Dividend Rate and the amount of such Dividend (the "**Additional Dividend Amount**") with respect to Arrears of Dividend shall be due and payable pursuant to the Terms and Conditions of the Preference Shares and shall be calculated by applying the applicable Dividend Rate to the amount of the Arrears of Dividend and otherwise *mutatis mutandis* as provided in the Terms and Conditions of the Preference Shares. The Additional Dividend Amount accrued up to any Dividend Payment Date shall be added (for the purpose of calculating the Additional Dividend Amount accruing thereafter) to the amount of Arrears of Dividend remaining unpaid on such Dividend Payment Date so that it will itself become Arrears of Dividend.

Satisfaction of Arrears of Dividend by Payment

The Issuer:

(a) may satisfy any Arrears of Dividend and Additional Dividend Amounts (in whole or in part) at any time by giving notice of such election to the Preference Shareholders (in accordance with Condition 12 of the Terms and Conditions of the Preference Shares), to the Trustee and the Principal Paying Agent in writing not more than 15 Payment Business Days nor less than five Payment Business Days prior to the relevant payment date specified in such notice (which notice is irrevocable and shall oblige the Issuer to pay the relevant Arrears of Dividend and the Additional Dividend Amounts, on the payment date specified in such notice); and

(b) in any event shall satisfy any outstanding Arrears of Dividend and Additional Dividend Amount (in whole but not in part) on the earliest of:

(i) the date of redemption of the Preference Shares in accordance with the redemption events set out in Condition 6 of the Terms and Conditions of the Preference Shares;

(ii) the next Dividend Payment Date following the occurrence of a breach of Condition 4.6(v) of the Terms and Conditions of the Preference Shares or the occurrence of a Compulsory Dividend Payment Event; and

(iii) a Winding-Up of the Issuer or the Parent.

Restrictions in the case of Deferral

Pursuant to Condition 4.6(v) of the Terms and Conditions, if, on any Dividend Payment Date, payment of Dividends scheduled to be made on such date is not made in full, the Issuer shall not:

(a) declare or pay any discretionary dividends or discretionary distributions or make any other discretionary payment, and will procure that no such discretionary dividend, discretionary distributions or other discretionary payment is made, on any Parity Obligations or Junior Obligations of the Issuer; or

(b) at its discretion redeem, reduce, cancel, buy back or otherwise acquire for any consideration any Parity Obligations or Junior Obligations of the Issuer prior to its stated maturity,

in each case, unless and until the Issuer has satisfied in full all outstanding Arrears of Dividends and Additional Dividend Amounts.

If, on any Dividend Payment Date, payment of Dividends scheduled to be made on such date is not made in full, the Parent shall not:

(a) declare or pay any discretionary dividends or discretionary distributions or make any other discretionary payment, and will procure that no such discretionary dividends, discretionary distributions or other discretionary payment is made, on any Parity Obligations or Junior Obligations of the Parent (except (I) in relation to Parity Obligations of the Parent, on a pro rata basis, or (II) in connection with any employee benefit plan or similar arrangements with or for the benefit of employees, officers, directors or consultants of the Parent); or

(b) at its discretion redeem, reduce, cancel, buy back or otherwise acquire for any consideration any Parity Obligations or Junior Obligations of the Parent prior to its stated maturity (except (I) in relation to Parity Obligations of the Parent, on a *pro rata* basis, (II) in connection with any employee benefit plan or similar arrangements with or for the benefit of employees, officers, directors or consultants of the Parent or (III) as a result of the exchange or conversion of its Parity Obligations for its Junior Obligations),

in each case, unless and until the Issuer has satisfied in full all outstanding Arrears of Dividends and Additional Dividend Amounts.

Redemption at the Option of the Issuer

The Preference Shares may be redeemed at the option of the Issuer in whole or in part, on giving not more than 60 nor less than 30 days' irrevocable notice to the Preference Shareholders in accordance with Condition 12 of the Terms and Conditions of the Preference Shares and to the Trustee and the Principal Paying Agent in writing at the Liquidation Preference of each Preference Share, together with any Dividend (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption, on the First Call Date or on any Dividend Payment Date after the First Call Date, including the First Reset Date.

Redemption for Taxation Reasons	The Preference Shares may be redeemed at the option of the Issuer in whole, but not in part, at any time, on giving not more than 60 nor less than 30 days' irrevocable notice to the Preference Shareholders in accordance with Condition 12 of the Terms and Conditions of the Preference Shares and to the Trustee and the Principal Paying Agent in writing (a "**Tax Redemption Notice**"), on the date specified in the Tax Redemption Notice for redemption (the "**Tax Redemption Date**"), at the Liquidation Preference of each Preference Share plus any Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the Tax Redemption Date, if the Issuer satisfies the Trustee immediately prior to the giving of such Tax Redemption Notice that (i) the Issuer has or will become obliged to pay Additional Tax Amounts as provided or referred to in Condition 8 as a result of any change in, or amendment to, the laws or regulations of the Cayman Islands or the PRC or, in any such case, any political subdivision or any authority thereof or therein having power to tax, or any change in the application or official interpretation of such laws or regulations, which change or amendment becomes effective on or after 2 November 2021, and (ii) such obligation cannot be avoided by the Issuer taking reasonable measures available to it (a "**Gross-Up Event**"), **provided that** no Tax Redemption Notice shall be given earlier than 90 days prior to the earliest date on which the Issuer would be obliged to pay such Additional Tax Amounts were a payment in respect of the Preference Shares then due.
Redemption for Accounting Reasons	The Preference Shares may be redeemed at the option of the Issuer in whole, but not in part, at any time, on the Issuer giving not less than 30 nor more than 60 days' notice to the Preference Shareholders in accordance with Condition 12 of the Terms and Conditions of the Preference Shares and to the Trustee and the Principal Paying Agent in writing (which notice shall be irrevocable) at the Liquidation Preference of each Preference Share, together with any Dividend (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption, if, immediately before giving such notice, the Issuer satisfies the Trustee that as a result of any changes or amendments to, or a change or amendment to any interpretation of: (a) PRC GAAP or any other generally accepted accounting standards that may be adopted by the Issuer for the purposes of preparing its consolidated financial statements (the "**Issuer Accounting Standards**");

(b) PRC GAAP or any other generally accepted accounting standards that may be adopted by SPIC International Finance (Hong Kong) Company Limited ("**SPIC International Finance Hong Kong**") for the purposes of preparing its consolidated financial statements (the "**Issuer Parent Accounting Standards**"); or

(c) PRC GAAP or any other generally accepted accounting standards that may be adopted by the Parent for the purposes of preparing its consolidated financial statements (the "**Parent Accounting Standards**" and each of the Parent Accounting Standards, the Issuer Accounting Standards and the Issuer Parent Accounting Standards is referred to as a "**Relevant Accounting Standard**"),

the Preference Shares must not or must no longer be recorded as "**equity**" of the Issuer, SPIC International Finance Hong Kong and the Parent pursuant to the applicable Relevant Accounting Standard (each, an "**Equity Disqualification Event**").

Redemption for Change of Control Event

The Preference Shares may be redeemed at the option of the Issuer in whole, but not in part on giving not more than 60 nor less than 30 days' irrevocable notice to the Preference Shareholders in accordance with Condition 12 of the Terms and Conditions of the Preference Shares and to the Trustee and the Principal Paying Agent in writing at (i) 101 per cent. of the Liquidation Preference of each Preference Share plus any Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption, at any time before the First Call Date; or (ii) the Liquidation Preference of each Preference Share plus any Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption, at any time on or after the First Call Date, if a Change of Control Event occurs.

A "**Change of Control Event**" means the occurrence of one or more of the following events:

(a) (x) SASAC and (y) any other person or persons (whether singly or in combination) directly or indirectly Controlled by the central government of the PRC (such person or persons and SASAC, the "**PRC Government Persons**" and each, a "**PRC Government Person**") together cease to directly or indirectly hold or own at least 50.1 per cent. of the issued ordinary share capital of the Parent;

(b) the Parent ceases to directly or indirectly hold or own 100 per cent. of the outstanding Ordinary Shares (as defined in the Terms and Conditions of the Preference Shares) of the Issuer; or

(c) the Parent consolidates with or merges into or sells or transfers all or substantially all of the Parent's assets to any other person or persons, acting together, except (x) where such person(s) is/are Controlled by the PRC Government Person(s); or (y) where the Parent is the surviving entity after the consolidation or merger.

Redemption on the Occurrence of a Breach of Covenants Event

The Preference Shares may be redeemed at the option of the Issuer in whole or in part, at any time, on giving not more than 60 nor less than 30 days' irrevocable notice to the Preference Shareholders in accordance with Condition 12 of the Terms and Conditions of the Preference Shares and to the Trustee and the Principal Paying Agent in writing at the Liquidation Preference of each Preference Share plus any Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption upon the occurrence of a Breach of Covenants Event.

Redemption on the Occurrence of a Relevant Indebtedness Default Event

The Preference Shares may be redeemed at the option of the Issuer in whole or in part, at any time, on giving not more than 60 nor less than 30 days' irrevocable notice to the Preference Shareholders in accordance with Condition 12 of the Terms and Conditions of the Preference Shares and to the Trustee and the Principal Paying Agent in writing at the Liquidation Preference of each Preference Share plus any Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption upon the occurrence of a Relevant Indebtedness Default Event.

Redemption for Minimum Outstanding Amount

The Preference Shares may be redeemed at the option of the Issuer in whole or in part, at any time, on giving not more than 60 nor less than 30 days' irrevocable notice to the Preference Shareholders in accordance with Condition 12 of the Terms and Conditions of the Preference Shares and to the Trustee and the Principal Paying Agent in writing at the Liquidation Preference of each Preference Share plus any Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption if prior to the date fixed for redemption at least 80 per cent. in aggregate Liquidation Preference of the Preference Shares has already been redeemed.

Withholding Taxes	All payments of Dividends, Liquidation Preference and/or any other amounts in respect of the Preference Shares (including any Arrears of Dividend or any Additional Dividend Amounts) shall be made free and clear of, and without withholding or deduction for or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or within the Cayman Islands or the PRC or, in any such case, any political subdivision or any authority thereof or therein having power to tax, unless such withholding or deduction is required by the law of the Cayman Islands or the PRC. In that event, the Issuer shall pay such additional amounts (the "**Additional Tax Amounts**") as will result in the receipt by the Preference Shareholders of such amounts as would have been received by them if no such withholding or deduction had been required, **provided**, **however**, **that** no such Additional Tax Amounts shall be payable in respect of any Preference Shares in the circumstances described in the Terms and Conditions of the Preference Shares.
Enforcement Event	If default is made in the payment of any amount of the Liquidation Preference or Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) in respect of the Preference Shares on the due date of payment thereof and such failure continues for a period of 14 days or more (each, an "**Enforcement Event**"), then in order to enforce the obligations of the Issuer, the Trustee at its sole discretion may and, if so requested by Holders of at least 25.0 per cent. in aggregate Liquidation Preference of the Preference Shares then issued and outstanding, shall (subject to the Trustee in any such case having been indemnified and/or provided with security and/or pre-funded to its satisfaction) institute proceedings for the Winding-Up of the Issuer and/or prove and/or claim in the Winding-Up of the Issuer for such payment.
Winding-Up of the Issuer or the Parent	In the event of a Winding-Up of the Issuer or the Parent (whether or not an Enforcement Event has occurred and is continuing), the Trustee at its sole discretion may and, if so requested by Holders of at least 25.0 per cent. in aggregate Liquidation Preference of the issued and outstanding Preference Shares, shall (subject to the Trustee in any such case having been indemnified and/or provided with security and/or pre-funded to its satisfaction) give written notice to the Issuer declaring the Preference Shares to be immediately due and payable, whereupon the Preference Shares become immediately due and payable at their Liquidation Preference together with accrued but unpaid Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) up to but excluding the date of actual payment without further action or formality.

Enforcement of the Intragroup Financing Agreements and the Financing Guarantees	The Issuer will pursuant to the Trust Deed grant an irrevocable power of attorney (the "**Power of Attorney**") to the Trustee and its custodian, agent, delegate or nominee (each, an "**Appointee**") to, in such manner as the Trustee or the Appointee thinks fit, enforce the Issuer's rights under the Intragroup Financing Agreements and the Financing Guarantees on behalf of the Issuer in the event of (i) a Winding-Up of any Financing Recipient or the Parent; and/or (ii) any amount under any Intragroup Financing Agreement and/or any Financing Guarantee payable by any Financing Recipient or the Parent to the Issuer not being paid when due or (as the case may be) within any applicable grace period.
Voting Rights	The Preference Shareholders shall not be entitled to convene, attend or vote at any Shareholders' meeting, except as set forth below or as otherwise from time to time required by law. For so long as any Preference Share remains outstanding, the Preference Shareholders will be entitled to attend the Shareholders' meeting and will be entitled to one vote for each issued and outstanding Preference Share in respect of the following matters: (a) any modification, amendment or revocation of the rights and/or privileges attached to the Preference Shares in the Terms and Conditions of the Preference Shares, the Articles of Association or the Keepwell Deed; (b) any other matter relating to the Issuer or the Ordinary Shares that is materially prejudicial to the interests of the Preference Shareholders; (c) the convening of proceedings for the administration, voluntary liquidation, dissolution, reorganisation, division, merger, amalgamation, consolidation or corporate reconstruction of the Issuer; (d) the convening of proceedings for the dissolution, reconstruction, amalgamation, reorganisation, merger or consolidation of the Parent or any Financing Recipient that would otherwise constitute a Winding-Up of the Parent or such Financing Recipient under the Terms and Conditions of the Preference Shares or the Intragroup Financing Agreements, as the case may be;

(e) the amending, supplementing, varying or waiving of any provision of the Intragroup Financing Agreements, the exercising of any right to rescind, cancel or terminate the Intragroup Financing Agreements, the transfer or assigning of any right of the Intragroup Financing Agreements or waiving or consenting to any breach or proposed breach of any provision of the Intragroup Financing Agreements, except for any such action by the Issuer that is not materially prejudicial to the interests of the Issuer and/or any class of shareholders of the Issuer;

(f) the amending, supplementing, varying or waiving of any provision of the Financing Guarantees, the exercising of any right to rescind, cancel or terminate the Financing Guarantees, the transfer or assigning of any right of the Financing Guarantees or waiving or consenting to any breach or proposed breach of any provision of the Financing Guarantees, except for any such action by the Issuer that is not materially prejudicial to the interests of the Issuer and/or any class of shareholders of the Issuer;

(g) the use of any amounts received by the Issuer pursuant to the Intragroup Financing Agreements or the Financing Guarantees (other than any Surplus) for any purposes other than payment to the Preference Shareholders pursuant to the Conditions or redemption of the Preference Shares in accordance with Condition 6 or to cover all amounts referred to in Clause 5.1(vi) of the Keepwell Deed; and/or

(h) any consent by the Issuer to the exercise or claim of any right of set-off or counterclaim by the Financing Recipients or the Parent in respect of any amounts due and payable to the Issuer under the Intragroup Financing Agreements or the Financing Guarantees respectively,

(each, a "**Preference Shareholder Matter Resolution**"). Passing of the Preference Shareholder Matter Resolution shall require (a) more than two-third of votes held by the Ordinary Shareholders present at the meeting and (b) more than two-third of votes held by the Preference Shareholders present at the meeting.

For the avoidance of doubt, a Preference Shareholder Matter Resolution shall not be required for (i) any issuance of Ordinary Shares to the Parent or to any wholly-owned Subsidiary of the Parent; or (ii) the entry into any shareholders' loan that ranks or is expressed to rank, by their terms or by operation of law, in right of payment behind the claims of the Preference Shareholders.

	"**Surplus**" means the excess of (i) any amount of distribution (including any arrears of distribution and any additional distribution amounts) received by the Issuer pursuant to the Intragroup Financing Agreements or the Financing Guarantees during a Dividend Period over (ii) any amount of Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) scheduled to be due and payable for such Dividend Period together with any amounts sufficient to cover those fees, costs, expenses, taxes and duties referred to in Clauses 5(vi)(b) and 5(vi)(c) of the Keepwell Deed incurred from time to time but unpaid, whether due and payable in such Dividend Period or not, provided that no such Surplus shall be recognised where the Dividend for such Dividend Period (and any Arrears of Dividend and any Additional Dividend Amounts) has been deferred (in whole or in part) and/or otherwise not paid to the Preference Shareholders. The Surplus can be used at the full discretion of the Issuer, including being applied towards payment of distributions to its Ordinary Shareholders, but until the Surplus is used, it shall remain the general funds of the Issuer.
Further Issues	The Issuer may not create and issue further Preference Shares ranking as regards participation in the profits and assets of the Issuer equally in all respects with the Preference Shares without a Preference Shareholder Matter Resolution.
Clearing Systems	The Preference Shares will be represented by beneficial interests in a Global Certificate in registered form, which will be registered in the name of a nominee for, and shall be deposited with, a common depository for Euroclear and Clearstream. Beneficial interests in the Global Certificate will be shown on and transfers thereof will be effected only through records maintained by Euroclear and Clearstream. Except in the limited circumstances described in the Global Certificate, owners of interests in Preference Shares represented by the Global Certificate will not be entitled to receive definitive Certificates in respect of their individual holdings of such Preference Shares. The Preference Shares will not be issuable in bearer form.
Governing Law and Jurisdiction	The Preference Shares and the rights and obligations attached to them are governed by, and shall be construed in accordance with, the laws of the Cayman Islands. The Trust Deed, the Agency Agreement, the Keepwell Deed, the Financing Agreements and the Financing Guarantees, and any non-contractual obligations arising out of or in connection with each of them, shall be governed by and construed in accordance with English law. Exclusive jurisdiction of the Hong Kong courts.

Trustee	China Construction Bank (Asia) Corporation Limited (中國建設銀行(亞洲)股份有限公司)
Principal Paying Agent, Registrar and Transfer Agent	China Construction Bank (Asia) Corporation Limited (中國建設銀行(亞洲)股份有限公司)
Listing	Application has been made to the SGX-ST for the listing of and quotation for the Preference Shares on the Official List of the SGX-ST. Approval-in-principle for the listing and quotation of the Preference Shares on the SGX-ST is not to be taken as an indication of the merits of the Issuer, the Parent, their subsidiaries, their associated companies or the Preference Shares. The Preference Shares will be traded on the SGX-ST in a minimum board lot size of U.S.$200,000 for so long as any of the Preference Shares are listed on the SGX-ST. For so long as any of the Preference Shares are listed on the SGX-ST and the rules of the SGX-ST so require, the Issuer will appoint and maintain a paying agent in Singapore where the Preference Shares may be presented or surrendered for payment or redemption in the event that a Global Certificate is exchanged for definitive Certificates. In addition, in the event that a Global Certificate is exchanged for definitive Certificates, an announcement of such exchange shall be made by or on behalf of the Issuer through the SGX-ST and such announcement will include all material information with respect to the delivery of the definitive Certificates, including details of the paying agent in Singapore.
Rating	The Preference Shares are expected to be rated "Baa1" by Moody's Investors Services ("**Moody's**"). A credit rating is not a recommendation to buy, sell or hold the Preference Shares and may be subject to revision, qualification, suspension, reduction or withdrawal at any time by the assigning rating agency.
ISIN	XS2403671493
Common Code	240367149
Legal Entity Identifier of the Issuer	549300K9J35UYMX4PD72

SUMMARY CONSOLIDATED FINANCIAL INFORMATION

The summary audited consolidated financial information of the Parent as at and for the years ended 31 December 2018, 2019 and 2020, as set out below, has been derived from the Parent's Consolidated Audited Financial Statements, which have been audited by BDO. The Parent's Consolidated Financial Statements were prepared and presented in accordance with PRC GAAP.

The summary unaudited and unreviewed consolidated financial information of the Parent as at and for the six months ended 30 June 2020 and 2021, as set out below, has been derived from the Parent's Consolidated Half-Year Financials. The Parent's Consolidated Half-Year Financials are condensed consolidated financial information of the Group and there are no notes to the consolidated financial information contained therein. The Parent's Consolidated Half-Year Financials have not been reviewed or audited by BDO or any other person and consequently should not be relied upon by investors to provide the same quality of information associated with information that has been subject to an audit or review. None of the Joint Lead Managers or any of their respective affiliates, directors, officers, employees, agents, representatives or advisers makes any representation or warranty, express or implied, regarding the accuracy or sufficiency of such consolidated financial statements for an assessment of, and potential investors must exercise caution when using such data to evaluate, the Group's financial condition and results of operations. The Parent's Consolidated Half-Year Financials should not be taken as an indication of the expected financial condition or results of operations of the Group for the full financial year ending 31 December 2021. See "Risk Factors – Risks Relating to the Group's Business and the Power Industry – The interim financial information of the Parent contained in this Offering Circular have not been reviewed or audited." The Parent's Consolidated Half-Year Financials have been prepared in Chinese only and the Financial Statements Translation has been prepared and included in this Offering Circular for reference only. None of the Joint Lead Managers or their respective affiliates, directors, employees and advisers has independently verified or checked the accuracy of the Financial Statements Translation and can give no assurance that the information contained in the Financial Statements Translation is accurate, truthful or complete.

*In 2017, the Ministry of Finance promulgated the revised Accounting Standards for Business Enterprises No. 22 – Recognition and Measurement of Financial Instruments, Accounting Standards for Business Enterprises No. 23 – Transfer of Financial Assets, Accounting Standards for Business Enterprises No. 24 – Hedge Accounting and Accounting Standards for Business Enterprises No. 37 – Presentation of Financial Instruments (Revised in 2017) (the "**New Standards for Financial Instruments**"). The Parent implemented the New Standards for Financial Instruments as of 1 January 2021. The adoption of the New Standards for Financial Instruments has had no significant impact and have not retrospectively applied on the unaudited and unreviewed consolidated financial information derived from the Parent's Consolidated Half-Year Financials.*

Prospective investors should read the summary consolidated financial information below in conjunction with the Company's audited consolidated financial statements and the related notes included elsewhere in this Offering Circular. Historical results are not necessarily indicative of results that may be achieved in any future period.

The following table set forth the Company's summary financial information as at the dates and for the periods indicated.

CONSOLIDATED BALANCE SHEET OF THE GROUP

(presented and prepared in accordance with PRC GAAP)

	As at 31 December			As at 30 June
	2018	2019	2020	2021
	(restated)	(restated) (RMB in millions)	(audited)	(unaudited and unreviewed) (RMB in millions)
Current Assets:				
Monetary funds	23,109.1	28,229.4	23,347.2	25,892.2
Loans to banks and other financial institutions	600.2	–	–	–
Financial assets held for trading	6,055.3	9,337.1	13,054.6	22841.7
Financial assets measured at fair value through current profit and loss	3,307.9	895.7	1,466.4	–[1]
Derivative financial assets	289.9	114.0	625.7	529.6
Notes receivable and Accounts receivable	50,148.9	63,317.0	78,097.8	106,756.3
Receivables financing	123.9	2,156.8	4,350.6	4,753.4
Advances to suppliers	17,702.3	19,416.2	18,333.7	24,916.7
Other receivables	13,801.3	19,643.9	20,944.5	22,782.9
Financial assets purchased under resale agreements	33.6	–	35.95	19.6
Inventories	22,433.9	22,893.7	20,637.6	22,399.5
Including: Raw materials	8,317.6	9,397.0	9,510.2	7,456.7
Stock commodities (finished goods)	3,755.1	2,602.3	2,967.7	4,329.0
Contract assets	2,816.4	6,180.7	4,491.9	4,884.1
Assets held-for-sale	5,468.3	4,431.9	5,396.2	5,304.7
Non-current assets maturing within one year	15,638.1	24,985.7	19,269.0	21,244.8
Other current assets	16,164.9	19,127.5	22,543.9	16,606.7
Total current assets	**177,694.0**	**220,729.6**	**232,594.9**	**278,932.0**
Non-current assets:				
Loans and advances	5,362.3	651.8	646.8	2,813.4
Creditor's right investment	1,964.2	1,048.40	2,674.3	3076.5
Available-for-sale financial assets	9,366.2	7,536.6	9,657.1	–[2]
Other debt investments	–	–	–	2,471.3
Held-to-maturity investments	2,401.5	4,286.0	5,525.1	–[3]
Long-term receivables	41,708.8	55,724.1	43,674.0	53,919.7
Long-term equity investments	39,192.1	39,245.3	42,663.0	42,907.8
Other equity instrument investment	2,038.9	2,498.7	2,916.8	12,573.9
Other non-current financial assets	399.7	197.2	47.5	4,367.5
Investment properties	3,566.8	4,188.6	3,857.6	3,857.6
Fixed assets	550,681.6	604,708.2	685,810.7	707,205.3
Construction in progress	163,236.5	157,494.6	178,736.0	185,387.9
Right-of-use assets	5,238.6	5,284.9	5,045.2	7,621.8
Intangible assets	31,475.3	35,053.9	42,404.2	43,398.5
Development expenses	5,739.0	5,745.4	8,783.4	9,301.5
Goodwill	11,299.9	10,559.3	12,404.3	12,315.4
Long-term deferred expenses	3,710.5	4,277.9	4,849.0	4,826.5
Deferred income tax assets	3,200.4	3,938.8	3,809.2	4,339.7
Other non-current assets	23,695.1	31,162.4	38,037.9	15,109.1
Total non-current assets	**904,277.4**	**973,602.1**	**1,091,541.9**	**1,115,493.4**
Total assets	**1,081,971.40**	**1,194,331.60**	**1,324,136.9**	**1,394,425.4**

(1) Due to the implementation of the New Standards for Financial Instruments, financial assets measured at fair value through current profit and loss is no longer reported in 2021 under PRC GAAP.

(2) Due to the implementation of the New Standards for Financial Instruments, available-for-sale financial assets is no longer reported in 2021 under PRC GAAP.

(3) Due to the implementation of new financial instrument standards, the New Standards for Financial Instruments held-to-maturity investments is no longer reported in 2021 under PRC GAAP.

	As at 31 December			As at 30 June
	2018	2019	2020	2021
	(restated)	(restated) (RMB in millions)	(audited)	(unaudited and unreviewed) (RMB in millions)
Current liabilities:				
Short-term borrowings	126,018.9	148,336.5	146,604.4	159,159.0
Borrowings from central bank	–	–	–	–
Transaction financial liabilities	–	–	188.7	401.9
Borrowed funds	–	–	–	1,000.0
Financial liabilities measured at fair value through current profit or loss	5.0	–	453.1	–[4]
Derivative financial liabilities	157.0	266.1	237.4	250.9
Notes and accounts payable	61,363.2	67,975.2	72,089.4	79,696.1
Advances from customers	13,754.8	12,563.1	11,278.7	10,742.2
Contract liabilities	138.5	1,151.8	1,665.2	1,504.5
Financial assets sold for repurchase	–	–	18.8	23.4
Absorption of deposits and interbank deposit	42.8	25.0	273.5	153.5
Employee compensation payable	1,850.8	2,848.4	2,949.5	4,046.4
Including: accrued payable	770.6	1,739.1	1,699.2	2,072.0
Welfare payable	1.4	1.4	1.4	13.7
Taxes and surcharges payable	5,259.7	6,075.6	6,570.9	5,291.3
Including: taxes payable	4,178.6	5,004.3	5,368.6	3,884.3
Other payables	23,265.6	25,652.2	24,485.2	33,427.4
Liabilities held for sale	4,225.4	4,080.3	3,080.8	2,854.8
Non-current liabilities maturing within one year	79,073.6	82,561.0	109,271.9	41,096.0
Other current liabilities	54,445.6	53,845.2	59,154.2	20,432.0
Total current liabilities	**369,600.8**	**405,380.6**	**438,321.9**	**360,079.6**
Non-current liabilities:				
Long-term borrowings	332,886.1	319,473.0	376,863.3	496,063.6
Bonds payable	92,137.9	119,503.0	95,645.6	86,362.0
Lease liabilities	4,686.1	4,104.9	3,785.2	9,045.2
Long-term payables	36,946.2	39,448.5	42,006.5	61,824.2
Long-term employee compensation payable	15.5	12.7	10.7	13.0
Estimated liabilities	337.8	528.0	559.1	496.8
Deferred income	9,905.0	10,547.5	10,584.8	10,634.3
Deferred income tax liabilities	1,151.9	1,505.4	1,527.5	3,661.7
Other non-current liabilities	509.1	3,967.5	3,640.3	2,824.7
Total non-current liabilities	**478,575.7**	**499,090.4**	**534,622.8**	**670,925.5**
Total liabilities	**848,176.5**	**904,471.0**	**972,944.7**	**1,031,005.0**
Owners' equity (or shareholders' equity):				
Paid-in capital (or share capital)	35,000.0	35,000.0	35,000.0	35,000.0
State-owned capital	35,000.0	35,000.0	35,000.0	35,000.0
Net paid-up capital (or share capital)	35,000.0	35,000.0	35,000.0	35,000.0
Other equity instruments	27,844.1	52,766.2	110,146.0	110,556.6
Perpetual capital securities	27,844.1	52,766.2	110,146.0	110,556.6
Capital reserve	7,280.8	17,574.1	19,148.9	18,186.4
Other comprehensive income	(858.6)	(248.9)	(1,249.9)	(812.1)
Including: foreign currency translation differences	(956.9)	(964.1)	(1,825.6)	(1,836.4)
Special reserve	164.60	180.30	172.5	334.5
Generic risk reserve	–	–	–	0.05
Undistributed profits	4,890.50	2,879.7	426.0	1,742.5
Total equity attributable to owners (or shareholders) of the parent company	74,321.50	108,151.3	163,643.5	165,008.1
Minority equity	159,473.50	181,709.3	187,548.7	198,412.3
Total owners' (or shareholders') equity	**233,794.90**	**289,860.6**	**351,192.2**	**363,420.4**
Total liabilities and owners' equity (or shareholders' equity)	**1,081,971.40**	**1,194,331.6**	**1,324,136.9**	**1,394,425.4**

[4] Due to the implementation of the New Standards for Financial Instruments, financial liabilities measured at fair value through current profit or loss is no longer reported in 2021 under PRC GAAP.

CONSOLIDATED INCOME STATEMENT OF THE GROUP

(presented and prepared in accordance with PRC GAAP)

	For the year ended 31 December			For the six months ended 30 June	
	2018	2019	2020	2020	2021
	(restated)	(audited)	(audited)	(unaudited and unreviewed)	
	(RMB in millions)			(RMB in millions)	
Total operating income	226,501.1	272,239.9	278,227.8	123,258.8	156,427.9
Including: Operating income	226,501.1	272,239.9	278,227.8	123,258.8	156,427.9
Total Operating costs	221,294.0	255,291.9	257,526.1	114,495.9	141,253.15
Including: operating costs	182,882.4	213,291.4	212,311.1	94,816.7	118,313.5
Taxes and surcharges	4,508.3	4,746.7	4,959.7	2,437.3	2,506.9
Selling expenses	829.2	707.9	777.1	341.7	397.1
General and administrative expenses	6,746.3	7,139.5	7,301.2	3,135.7	3,851.6
R&D expenses	785.5	1,533.8	2,306.1	245.7	652.2
Financial expenses	25,542.3	27,872.4	29,870.8	13,518.7	15,531.9
Including: interest expenses	25,616.2	27,517.4	29,508.1	12,126.7	15,440.9
Interest income	430.3	286.3	321.0	312.8	418.9
Net losses from foreign exchange	80.6	61.5	239.8	107.9	17.9
Plus: other income	1,555.5	1,847.9	1,907.7	540.2	661.9
Investment income	5,411.9	5,777.6	6,034.6	2,705.6	3,046.3
Including: income from investment in associates and joint ventures	1,897.2	2,310.5	3,070.3	–	–
Income from derecognition of financial assets measured at amortized cost	–	(26.5)	(98.8)	–	–
Foreign exchange gains	6.0	1.1	(4.6)	–	–
Gains from the changes in fair value	222.3	53.1	143.6	(94.9)	255.7
Losses from credit impairment	–	(146.8)	(586.4)	(81.9)	(234.7)
Losses from asset impairment	(2,366.8)	(8,115.5)	(7,676.1)	(1,822.0)	(3,475.2)
Income from disposals of assets	251.7	331.5	270.6	44.9	114.0
Operating profit	**10,287.8**	**16,696.9**	**20,791.1**	**10,054.8**	**15,542.7**
Plus: non-operating income	1,433.0	1,378.1	1,387.6	443.6	716.1
Including: government subsidies	340.6	208.4	200.7	147.5	102.7
Less: non-operating expenses	616.0	2,173,7	1,479.6	216.3	162.5
Total profit	**11,104.8**	**15,901.3**	**20,699.1**	**10,282.1**	**16,096.3**
Less: income tax expenses	4,095.0	5,355.2	6,864.3	2,698.9	4,828.3
Net profit	**7,009.8**	**10,546.1**	**13,834.7**	**7,583.1**	**11,268.0**
A. Classified by Ownership					
Net profit attributable to owners of the parent company	1,169.1	1,251.0	2,371.9	591.1	1,986.8
Minority interest income	5,840.7	9,295.0	11,462.8	6,992.0	9,281.2
B. Classified by operating sustainability					
Net profit from continuing operations	7,009.8	10,546.1	13,834.7	7,583.1	11,268.0
Other comprehensive income net of tax	**(1,775.8)**	**473.4**	**(1,649.8)**	**–**	**–**

	For the year ended 31 December			For the six months ended 30 June	
	2018	2019	2020	2020	2021
	(restated)	(audited)	(audited)	(unaudited and unreviewed)	
	(RMB in millions)			(RMB in millions)	
Net amount of other comprehensive income attributable to owners of the parent company after tax	(1,021.8)	609.7	(1,000.2)	–	–
(I) Other comprehensive income that cannot be reclassified into profits or losses	(30.5)	(157.2)	660.9	–	–
Other comprehensive income that cannot be transferred to profits or losses under the equity method	0.7	(0.3)	(0.1)	–	–
Changes in fair value of other equity instrument investments	(31.2)	(156.9)	661.0	–	–
(II) Other comprehensive income that will be reclassified into profits or losses	(991.4)	766.9	(1,661.1)	–	–
Other comprehensive income that can be transferred to profits or losses under the equity method	27.8	(42.0)	(64.0)	–	–
Profit and loss of change in fair value of available-for-sale financial assets	(123.0)	109.0	49.8	–	–
Profit or loss arising from reclassification of held-to-maturity investments as available-for-sale financial assets	(0.6)	197.2	42.1	–	–
Reserves of cash flow hedges (effective portion of cash flow hedging profit or loss)	(38.8)	(208.9)	(230.3)	–	–
Translation differences of financial statements denominated in foreign currency	(856.8)	(7.2)	(861.5)	–	–
Others	–	719.0	(597.4)	–	–
Other comprehensive income net of tax attributable to minority shareholders	(754.0)	(136.3)	(649.5)	–	–
Total comprehensive incomes	**5,233.9**	**11,019.5**	**12,185.0**	**–**	**–**
Total comprehensive income attributable to owners of the parent company	147.2	1,860.8	1,371.7	–	–
Total comprehensive income attributable to minority shareholders	**5,086.7**	**9,158.7**	**10,813.3**	**–**	**–**

CONSOLIDATED CASH FLOW STATEMENT OF THE GROUP

(presented and prepared in accordance with PRC GAAP)

	For the year ended 31 December			For the six months ended 30 June	
	2018	2019	2020	2020	2021
	(restated)	(audited)	(audited)	(unaudited and unreviewed)	
	(RMB in millions)			(RMB in millions)	
Cash flows from operating activities:					
Cash received from sale of goods and rendering of services	224,687.30	264,186.30	283,050.7	122,909.0	157,185.8
Net increase in customer deposits and placement from banks and other financial institutions	5,815.5	(581.6)	248.5	–	–
Net increase in borrowings from central bank	(18.8)	–	–	–	–
Net increase in loans from other financial Institutions	–	(200.0)	–	–	–
Net increase received from disposal of financial assets measured at fair value through current profit or loss	(10.5)	(3,281.8)	(3,943.6)	–	–
Cash received from interest, handling charges and commissions	1,598.4	1,710.2	1,598.2	–	–
Refunds of taxes and surcharges	484.0	507.3	880.0	258.1	420.0
Cash received from other operating activities	16,081.1	19,002.4	25,056.7	2,793.7	1,478.3
Sub-total of cash inflows from operating activities	**248,637.0**	**281,342.8**	**306,890.6**	**125,960.8**	**159,084.1**
Cash paid for goods purchased and services received	145,098.4	176,261.0	174,564.6	82,205.2	108,525.9
Net increase in loans and advances to customers	4,608.4	(4,710.5)	(2,036.0)	–	–
Net increase in deposits in the central bank, other banks and financial institutions	452.4	(599.4)	433.0	–	–
Cash paid for interests, handling charges and commissions	200.8	330.5	609.3	–	–
Cash paid to and on behalf of employees	23,557.7	27,452.6	28,917.9	10,477.6	12,896.7
Cash paid for taxes and surcharges	20,422.7	22,810.2	22,584.7	12,321.8	13,681.8
Cash paid for other operating activities	14,201.5	18,391.5	26,753.9	3,135.7	2,754.3
Sub-total of cash outflows from operating activities	**208,542.0**	**239,935.9**	**251,827.3**	**108,140.3**	**137,858.7**
Net cash flows from operating activities	**40,095.0**	**41,406.9**	**55,063.3**	**17,820.6**	**21,225.5**
Cash flows from investing activities:					
Cash received from disposal of investments	44,108.3	49,378.4	39,874.6	37,369.8	39,371.3
Cash received from returns on investments	2,201.5	3,851.2	4,886.4	4,326.1	4,523.2
Net cash received from disposal of fixed assets, intangible assets and other long-term assets	1,382.7	561.8	1,058.1	1,016.9	188.9
Net cash received from disposal of subsidiaries and other business units	131.8	3,977.3	502.1	252.8	288.6
Other cash received from other investing activities	24,455.0	17,185.5	11,433.5	1,596.2	1,748.5
Sub-total of cash inflows from investing activities	**72,279.30**	**74,954.20**	**57,754.7**	**44,561.8**	**46,120.5**

	For the year ended 31 December			For the six months ended 30 June	
	2018	2019	2020	2020	2021
	(restated)	(audited)	(audited)	(unaudited and unreviewed)	
	(RMB in millions)			(RMB in millions)	
Cash paid to acquire and construct fixed assets, intangible assets and other long-term assets	63,493.9	75,462.0	104,527.2	40,637.0	39,969.3
Cash paid for investments	64,772.1	72,981.00	76,203.5	119.0	16.0
Net cash paid to acquire subsidiaries and other business units	1,512.0	942.8	7,882.0	923.0	40.0
Cash paid relating to other investing activities	38,427.3	35,003.4	24,612.0	1,995.0	1,587.9
Sub-total of cash outflows from investing activities	**168,205.3**	**184,389.2**	**213,224.6**	**43,674.0**	**41,613.2**
Net cash flows from investing activities	**(95,926.1)**	**(109,435.0)**	**(155,469.9)**	**887.7**	**4,507.3**
Cash flows from financing activities:					
Cash received from capital contributions	55,314.8	54,510.5	80,612.2	9,657.1	5,284.9
Including: cash received from minority shareholders' capital contributions to subsidiaries	48,804.2	19,011.1	16,662.2	1,190.7	2,264.2
Cash received from borrowings	551,420.3	462,370.0	537,048.6	211,374.6	288,853.1
Cash received from bonds issued	13,000	4,999.7	–	–	–
Cash received relating to other financing activities	34,327.0	36,075.7	22,144.4	1,566.7	966.7
Sub-total of cash inflows from financing activities	**654,062.0**	**557,955.8**	**639,805.1**	**222,598.5**	**295,104.7**
Cash paid for debt repayments	546,889.2	421,163.7	462,498.9	248,795.8	292,570.9
Cash paid for distribution of dividends and profits or payment of interest	38,241.2	41,424.8	42,625.9	18,973.4	24,524.3
Including: dividends and profits paid to minority shareholders by subsidiaries	2,891.4	6,456.8	6,745.5	4,715.1	5,580.8
Cash paid for other financing activities	16,098.4	22,329.9	39,593.6	1,021.4	1,021.4
Sub-total of cash outflows from financing activities	**601,228.7**	**484,918.4**	**544,718.4**	**268,790.6**	**318,116.6**
Net cash flows from financing activities	**52,833.3**	**73,037.4**	**95,086.7**	**(46,192.1)**	**(23,011.9)**
Effect of fluctuation in exchange rate on cash and cash equivalents	**6.9**	**103.4**	**304.3**	**(1,844.4)**	**(175.8)**
Net increase/(decrease) in cash and cash equivalents	**(2,990.9)**	**5,112.7**	**(5,015.5)**	**(29,328.3)**	**2,544.9**
Plus: balance of cash and cash equivalents at the beginning of the period	22,071.5	19,080.6	24,193.3	52,154.0	23,347.2
Balance of cash and cash equivalents at the end of the period	**19,080.6**	**24,193.3**	**19,177.8**	**22,825.7**	**25,892.2**

RISK FACTORS

Prior to making any investment decision, prospective investors should consider carefully all of the information contained in this Offering Circular, including the risks and uncertainties described below. The business, financial condition or results of operations of the Group could be materially and adversely affected by any of these risks. The Group believes that the following factors may affect its ability to fulfil its obligations under the Preference Shares, the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees. Additional risks and uncertainties not presently known to the Group or which the Group currently deems immaterial may also have an adverse effect on an investment in the Preference Shares. All of these factors are contingencies which may or may not occur and the Group is not in a position to express a view on the likelihood of any such contingency occurring.

Factors which the Group believes may be material for the purpose of assessing the market risks associated with the Preference Shares, the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees are described below. The Group believes that the factors described below represent the principal risks inherent in investing in the Preference Shares, but the inability of the Group to pay liquidation preference, pay dividend (if any) or other amounts or fulfil other obligations on or in connection with the Preference Shares, the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees may occur for other reasons and the Group does not represent that the statements below regarding the risks of holding the Preference Shares are exhaustive.

RISKS RELATING TO THE GROUP'S BUSINESS AND THE POWER INDUSTRY

Fluctuations in global and Chinese economic and market conditions could materially and adversely affect the business activities, financial condition and results of operations of the Group.

The Group's business, results of operations and financial condition are materially affected by economic conditions in China and globally. While some economies have resumed growth since the global financial crisis, the outlook for the world economy and financial markets remains uncertain. For instance, several countries in Europe have faced difficulties in refinancing sovereign debt, and the Chinese economy has experienced a slowdown in overall economic growth. The U.S.-China trade war and the fact that the United States increased tariffs on Chinese exports has already resulted in the instability of the market, which has weakened the markets and lowered the confidence of consumers, as well as reduced economic growth expectations around the world. In addition, United Kingdom's withdrawal from the European Union may result in adverse effects on global economic conditions and stability of global financial markets, and may significantly reduce global market liquidity and restrict the ability of key market participants to fund their capital and liquidity requirements and operate in certain financial markets. Furthermore, the COVID-19 pandemic has spread worldwide since December 2019 and disrupted the global economy and materially affected the financial market conditions. There is no assurance that these factors would not in turn have adverse effects on the Group's business, financial conditions and results of operations. See also "*– The COVID-19 pandemic has had a negative impact on worldwide economic activity and the Group's operations and may have an ongoing impact on the Group's business.*"

Any adverse change in the global and Chinese economic conditions or government policies could have a material adverse effect on the overall economic growth and the level of investment and expenditure, which in turn could have a material adverse effect on the Group's business, financial condition and results of operations.

The Group's plans for overseas business development and investment may be subject to unforeseen risks.

In accordance with the Group's business development strategy, the Group is acquiring or investing in projects in countries and regions outside China. For example, in 2017, the Company's subsidiary UHE São Simão won the bid for the 30-year concession right of the São Simão Hydropower Station in Brazil. As the Group expands into other regions, the Group will be subject to additional risks that could materially and adversely affect the Group's results of operations. These risks include, but are not limited to:

- unsettled political conditions, war, civil unrest and hostilities in countries and regions where the Group operate or intend to invest;
- breach of contract by the central or local government or the Group's main business partners in the countries and regions where the Group's overseas business is located or the Group intends to invest;
- undeveloped legal systems or changes in government policies;
- political and economic instability in foreign markets, including high inflation and primary deficit;
- natural disasters;
- fluctuations in market demand;
- fluctuations and changes in foreign exchange rates;
- PRC regulations and approval processes related to overseas investments; and
- governmental actions such as expropriation of assets, changes in general legislative or regulatory environment, exchange controls, cancellation of contract rights, and changes in global trade policies such as trade restrictions and embargoes imposed by any country.

The Group cannot predict the effect that current conditions affecting various foreign economies or future changes in economic or political conditions abroad could have on the feasibility and costs of the projects the Group intend to invest in or acquire. Any of the above factors may have a material and adverse effect on the Group's overseas expansion plans and, consequently, the Group's business, prospects, financial condition and results of operations.

The Group operates in a capital-intensive business, and a significant increase in capital costs could have a material adverse effect on the Group.

The Group operates in a capital-intensive industry. Developing, acquiring or investing in new power projects, and developing or expanding existing power plants require substantial capital, and the capital investment required therefor generally varies based on the cost of the necessary fixed assets. The price of such equipment and/or civil construction works may increase if the market demand for such equipment or works is greater than the available supply, or if the prices of key component commodities and raw materials used in constructing such equipment increase. Other factors affecting the amount of capital investment required include, among others, construction costs and finance expenses. A significant increase in the costs of developing and constructing the Group's energy facilities could have a material adverse effect on the Group's business, financial condition or results of operations.

The Group expects to finance its capital expenditures principally with cash flow from operating activities, its existing cash resources and financing from other external sources. The Group's ability to obtain external financing in the future is, however, subject to a variety of uncertainties, including (i) obtaining the necessary government approvals to raise financing for projects; (ii) the Group's future financial condition, operating results and cash flows; (iii) the general condition of the global and domestic financial markets and changes in government monetary policies with respect to bank interest rates and lending policies; and (iv) credit availability from banks or other lenders, investor confidence in the Group and the continued success of the Group's power plants. In the event the Group's current resources are not sufficient for its needs, the Group may have to seek additional financing, including equity or debt financing. There is no assurance that the Group will be able to raise the financing required for its planned capital expenditures on acceptable terms or at all. If the Group were unable to raise such financing, it may have to reduce its planned capital expenditures and delay or abandon its expansion plan, which in turn could have a material adverse effect on its business or results of operations.

The Group's borrowing levels, significant interest payment obligations and net current liabilities could limit the funds available to the Group for various business purposes.

Due to the rapid expansion of its business in recent years, the Group has relied on both long-term and short-term borrowings to fund a portion of its capital requirements, and expects to continue to do so in the future. As at 31 December 2018, 2019 and 2020, the Group had long-term and short-term borrowings of RMB458,905.0 million, RMB467,809.4 million and RMB523,467.7 million, respectively, net current liabilities of RMB191,906.8 million, RMB184,650.4 million and RMB205,727.0 million, respectively, and debt-to-assets ratio of 78.39 per cent., 75.72 per cent. and 73.48 per cent. respectively. The Group's short-term borrowings and long-terms borrowings increased to RMB159,159.0 million and RMB496,063.6 million as at 30 June 2021 and both further increased in the third quarter of 2021.

The Group may continue to have net current liabilities in the future. The degree to which the Group is leveraged and the high level of net current liabilities could constrain its operational flexibilities and have significant consequences, including (i) limiting the Group's ability to repay its outstanding debt; (ii) requiring a substantial portion of the Group's cash flows from operations to be used for servicing its debt, thereby reducing the cash flow for working capital, capital expenditure or other general corporate uses; (iii) making the Group more vulnerable to adverse general economic and industry conditions, and increasing its exposure to interest rate fluctuations; (iv) limiting the Group's ability to obtain, and increasing the cost of, additional financing to fund future working capital, capital expenditures or general corporate uses; (v) limiting the Group's flexibility in planning for or reacting to the changes in its businesses and the industry; and (vi) causing the Group to be less competitive compared with its competitors that have less debt.

There is no assurance that the Group will always be able to raise the funding necessary to finance its current liabilities and other debt obligations. The Group's business, prospects and financial condition may be materially and adversely affected if its cash flows and capital resources are insufficient to finance its debt obligations.

The Group's business may be affected by fluctuations in interest rates and the general availability of credit.

The Group is exposed to interest rate risk resulting from fluctuations in interest rates on its debt, and changes in interest rates affect its finance expenses and, ultimately, its results of operations. As the Group relies heavily on external financing to secure investment capital to finance the expansion of its power generation business, the Group is sensitive to the cost of capital in securing these loans. The Group's

interest expenses amounted to RMB25,616.2 million, RMB27,517.4 million and RMB29,508.1 million for the years ended 31 December 2018, 2019 and 2020, respectively. Any significant increase in interest rates will result in a substantial increase in the Group's interest expenses, which may materially and adversely affect its business, financial condition, results of operations and expansion plans. In the future, the Group may continue to incur substantial indebtedness to finance its business expansion. In incurring indebtedness in the future, the Group may create security interests over its assets or receivables in favour of creditors. If the Group incurs additional debt, the risks that the Group faces as a result of its already substantial indebtedness and leverage ratio could intensify.

Government regulation of on-grid power tariffs and other aspects of the power industry may adversely affect the Group's business.

Similar to electric power companies in other countries, the Group is subject to governmental and electric grid regulations in virtually all aspects of the Group's operations, including the amount and timing of electricity generations, the setting of on-grid tariffs, the performance of scheduled maintenance and compliance with power grid control and dispatch directives and environment protection. There can be no assurance that these regulations will not change in the future in a manner which could adversely affect the Group's business.

In 2009, the PRC Government started to promote the practice of direct power purchase by large power end-users. Pursuant to the circular jointly issued by the NDRC, the State Electricity Regulatory Commission ("**SERC**") and China National Energy Administration ("**NEA**") in June 2009, the direct power purchase price consists of direct transaction price, on-grid dispatch and distribution price and governmental levies and charges, in which the direct transaction price shall be freely determined through negotiation between the power generation company and the large power end-user. The price of direct power purchase is subject to the demand in the power market, and may increase due to a power supply shortfall. Furthermore, the scale and mode of the transaction are also subject to the structure and level of development of the local economy. For power generation companies engaged in direct power purchase, direct power sales constitute a portion of the total power sales, thus affecting the on-grid power sales of such companies. In the photovoltaic ("**PV**") power sector, the PRC Government began to adjust its policies in 2018. Pursuant to the circular jointly issued by the NDRC, the NEA and the Ministry of Finance ("**MOF**") on 31 May 2018 (關於2018年光伏發電有關事項的通知), the PRC Government accelerated the process of reducing subsidies for both PV power station construction and electricity price by restricting the construction of ordinary PV power stations and lowering the benchmark PV power on-grid tariff. In 2018, the PRC Government continued the reform of direct power purchases by large power end-users. Pursuant to the notice jointly issued by NDRC and the NEA on 1 July 2019 (關於積極推進風電、光伏發電無補貼平價上網有關工作的通知), the PRC Government adopted multiple policies, including full-amount power on gird, guaranteed purchase, and reducing the power transmission and distribution prices and fees of direct trading, to promote subsidy-free grid parity for wind power and PV power generation. Although a direct power purchase may act as an alternative channel for the Group's power sales, there is uncertainty as to the effect of the practice of direct power purchase over the Group's operating results. The on-grid tariff-setting mechanism is evolving with the reforming of the PRC electric power industry. There is no assurance that it will not change in a manner which could adversely affect the Group's business and results of operations.

If the Group's power plants receive less dispatching than planned generation, the power plants will sell less electricity than planned.

The Group's profitability depends, in part, upon each of the Group's power plants generating electricity at a level sufficient to meet or exceed the planned generation, which in turn will be subject to local demand for electric power and dispatching to the grids by the dispatch centres of the local grid companies.

The dispatch of electric power generated by a power plant is controlled by the dispatch centre of the applicable grid companies pursuant to a dispatch agreement with the Group and to governmental dispatch regulations. In each of the markets in which the Group operates, the Group compete against other power plants for power sales. No assurance can be given that the dispatch centres will dispatch the full amount of the planned generation of the Group's power plants. A reduction by the dispatch centre in the amount of electric power dispatched relative to a power plant's planned generation could have an adverse effect on the profitability of the Group's operations. There can be no assurance that the Group will not encounter such an event in the future.

In August 2007, the General Office of the State Council issued *Notice of the General Office of the State Council on Forwarding the Energy-Saving and Electricity Dispatch Measures (Trial) Formulated by the NDRC and Several Other Departments* (*Guo Ban Fa* [2007] No. 53), which provides that energy saving and electricity dispatch shall consolidate with the development of the power market, in an effort to optimise the power market. In October 2008, the SERC approved the trial implementation of the policy of energy saving and electricity dispatch in certain pilot provinces. The PRC Government has continued promoting the policy of energy saving and electricity dispatch. There can be no assurance that such implementation will not result in any decrease in the amount of power dispatched by any of the Group's power plants.

The PRC power industry reform may affect the Group's business.

In 2002, the PRC Government announced and began to implement measures to further reform the power industry, with the ultimate goal of creating a more open and fair power market. As part of the reform, five power generation companies, including CPI were created or restructured to take over all the power generation assets originally belonging to the State Power Corporation of China. In addition, two grid companies were created to take over the power transmission and distribution assets originally belonging to the State Power Corporation of China. An independent power supervisory commission, the SERC, was created to regulate the power industry. It is still uncertain as to whether any further reforms are going to be implemented and how they will impact the Group's business.

The PRC Government continued the reform in the power industry, especially on the optimisation and upgrading of power structure and promotion of clean and renewable energy. The further reform will intensify competition and phase out obsolete facilities, which may adversely affect the Group's business and prospects.

Power plant development, acquisition and construction is a complex and time-consuming process, and failure to conduct such business in an effective and efficient manner may affect the Group's business.

The Group develops, constructs, manages and operates large power plants. The Group's success depends upon the Group's ability to secure all required government approvals, power sales and dispatch agreements, construction contracts, and fuel supply, transportation and electricity transmission arrangements. Delay or failure to secure any of these could increase costs or delay or prevent commercial operation of the affected power plant. No assurances can be given that all the future projects will receive approvals in a timely fashion or at all. In addition, PRC Government approval requirements and procedures for thermal power plant are increasingly stringent, due to national policies and related regulations promoting environmentally friendly energy. There can be no assurance that the Group possesses at all times adequate certificates, authorisations, licences, orders, consents, approvals or permits required by all applicable laws and regulations. A breach of any laws or regulations to which the Group is subject may result in the imposition of fines and penalties or the suspension or closure of the relevant power plant operation.

The Group may also face costs, delays or difficulties in the acquisition of land and associated demolition, resettlement, rehabilitation and compensation issues in the development and construction of its power plants. Local government authorities may choose not to support the development of power project facilities to protect the local environment and community from potential risks. Due to the actual or perceived environmental and other impact of power plants, local residents, environmental activists or other special interest groups may also protest against the development and construction of power plants, and any disputes relating to demolition, relocation and compensation of local residents may result in delays in the resettlement process. There is no assurance that the Group or its affiliates or partners will not fail to manage community relationships appropriately. Opposition from or disputes with local community, political or environmental groups or local government authorities with respect to the development or construction of the Group's power projects could increase development costs, cause delays, interruptions or even cancellations of development plans, adversely affect the Group's reputation and/or hamper its ability to acquire or construct new power plants to grow its business.

The Group has generally acted as, and intends to continue to act as, the general contractor for the construction of the Group's power plants. As with any major infrastructure construction effort, the construction of a power plant involves many risks, including shortages of equipment, material and labour, labour disturbances, accidents, inclement weather, unforeseen engineering, environmental and geological problems, delays and other problems and unanticipated cost increases, any of which could give rise to delays or cost overruns. Construction delays may result in loss of revenue. Failure to complete construction according to specifications may result in liabilities, reduce power plant efficiency, increase operating costs and reduce earnings. No assurance can be given that construction of ongoing future projects will be completed on schedule or within budget.

In addition, from time to time, the Group may acquire existing power plants from other parties. The timing and the likelihood of the completion of any such acquisitions will depend, among other things, on the Group's ability to obtain financing and relevant government approvals and to negotiate relevant agreements for terms acceptable to the Group.

The Group and its operations are required to comply with various regulatory requirements and are subject to inspection by regulatory authorities. Any failure to fully comply with such requirements and any adverse findings resulting from such inspections could materially and adversely affect its business, financial condition, results of operations and reputation.

The Group and its operations are required to comply with various regulatory requirements in the PRC and elsewhere, and the relevant regulatory authorities conduct periodic inspections, examinations and inquiries in respect of its compliance with such requirements. On occasion the Group may fail to comply with certain requirements and guidelines set by the relevant regulatory authorities.

The National Audit Office of the PRC (the "**CNAO**") once released a report in respect of SNPTC and similarly released a report in respect of CPI (together, the "**CNAO Reports**"), both of which were published on the CNAO's website. The CNAO Reports had each identified certain financial reporting, internal control and business integrity issues involving CPI and/or SNPTC and their respective subsidiaries, including misuse of funds, understating earnings, overstating assets, understating taxes with improper accounting practices and commencing projects prior to obtaining all necessary internal and/or regulatory approvals. In response to the issues identified in the CNAO Reports, SNPTC and CPI published an announcement respectively, stating that they had rectified and restated the relevant accounting entries, repaid relevant taxes, improved internal accounting policies, rectified any non-compliance with internal and regulatory approval requirements and imposed penalties on the relevant persons involved. In August 2021, the CNAO commenced a new economic responsibility audit on the Group. While the Group has

taken measures to address the issues identified in the CNAO Reports and formulated or revised its internal regulations and operating procedures to improve its internal controls and risk management systems, there can be no assurance that there will not be any further investigation or action against the Group, its officers or employees resulting from the findings of the CNAO or other governmental authorities.

The Group was also subject to certain negative findings by an inspection team from the Central Leading Group for Inspection Work (中央巡視工作領導小組) (the "**Inspection Leading Group**"), which is a coordination body set up under the Central Committee of the Communist Party of the PRC for the purpose of conducting party disciplinary inspections nationwide. The inspection team once pointed out a number of deficiencies in the Group's corporate governance systems and then issued a number of recommendations for rectification of these deficiencies to help improve the Group's internal control and corporate governance mechanisms. The Group has addressed these issues through implementing internal controls to prevent the misuse of authority and enhancing senior management's accountabilities and responsiveness. While the Group had taken steps to implement measures to improve its internal control, corporate governance and risk management mechanisms to address these issues identified by the Inspection Leading Group, there is no assurance that there will not be any further investigations or actions against the Group, its officers or employees resulting from the findings of the Inspection Leading Group or other governmental authorities.

There can be no assurance that the remedial actions taken by the Group in response to the investigations by CNAO and the Inspection Leading Group can sufficiently address all deficiencies identified in such investigations. Further, there can be no assurance that the Group's internal control system will effectively prevent similar deficiencies from happening in the future. In either case, the Group's business, financial condition, results of operations and reputation may be materially and adversely affected, and the Group or any of its management, officers or employees may be subject to further investigations and sanctions imposed by the PRC authorities. If sanctions, fines and other penalties are imposed on the Group for failing to comply with applicable requirements, guidelines or regulations, the Group's business, financial condition, results of operations and its reputation may be materially and adversely affected.

In addition, the Group may not be able to always detect or prevent fraud, corruption or other misconduct committed by its employees, which may have a negative impact on its reputation and business. It is not always possible to deter or prevent employee misconduct, and the precautions taken by the Group to prevent and to detect such activities may not be effective in all cases. In June 2020, a senior officer of a subsidiary of the Group received a notice of investigation from the CSRC on alleged breach of PRC securities law. In March 2021, employees of an indirect third-level subsidiary of the Group faced charges of alleged corruption and embezzlement. These however are individual cases and have no material adverse effect on the Group as a whole. There can be no assurance nevertheless that other cases of fraud, corruption or other misconduct of the Group's employees will not occur in future. The Group could suffer from negative publicity, reputational damage, monetary losses or litigation losses as a result of the fraud, corruption or other misconduct of its employees.

The Group could be adversely affected as a result of its operations in certain countries that are subject to evolving sanctions.

The U.S. and other jurisdictions have had or currently have comprehensive or broad economic sanctions (the "**Sanctions**") against and in relation to certain countries. These Sanctions may also include restrictions on dealing with certain designated persons and entities, including persons on the list of the Office of Foreign Assets Control of the U.S. Department of the Treasury of Specially Designated Nationals ("**SDN List**"). The Group has investments, operations and business dealings in countries that have in the past been, or are currently, the subject of Sanctions (the "**Sanctioned Countries**"). The Group has also had business dealings with entities and persons that were listed on the SDN List in the past.

The Group believes that none of its business activities in such Sanctioned Countries has a material adverse effect on the Group. If it were determined that any transaction in which the Group participated violates

any Sanctions, the Group could be subject to sanctions or other penalties and its business, results of operations and financial condition may be materially and adversely affected. In addition, the Group may be the subject of negative media or investor attention as a result of its activities or presence in Sanctioned Countries or dealings with entities and persons that have in the past been listed on the SDN List, which may harm the Group's reputation and may have a negative impact on the Group's business, financial condition and results of operations. Furthermore, the Sanctions are evolving and there can be no guarantee that the Group's present and future investments, operations and business dealings will not be materially and negatively impacted by any changes in the Sanctions or their interpretation, implementation and enforcement.

The operation of power plants involves many risks, and the Group may not have adequate insurance to cover the economic losses if any of the Group's power plants' ordinary operations are interrupted.

The operation of power plants involves many risks and hazards, including breakdown, failure or substandard performance of equipment, improper installation or operation of equipment, labour disturbances, natural disasters, environmental hazards and industrial accidents. The occurrence of material operational problems, including but not limited to the above events, may adversely affect the profitability of a power plant.

The Group's power plants in the PRC currently maintain insurance coverage that is typical in the electric power industry in the PRC and in amounts that the Group believes to be adequate. Such insurance, however, may not provide adequate coverage in certain circumstances. In particular, in accordance with industry practice in the PRC, the Group's power plants in the PRC do not generally maintain business interruption insurance, or any third-party liability insurance other than that included in construction all-risks insurance or erection all-risks insurance covering claims in respect of bodily injury or property or environmental damage arising from accidents on the Group's property or relating to the Group's operations. There is no assurance that such accidents will not occur at the Group's power plants in the future. The occurrence of any such incident, accident or disaster for which the Group is uninsured or inadequately insured may materially and adversely affect the Group's business, financial condition and results of operations.

The Group is exposed to substantial potential risks and liabilities associated with the Group's nuclear power generation business.

The Group engages in nuclear power generation activities. Unlike in other industries, including the non-nuclear power generation industry, a significant quantity of radioactive substances is contained in the nuclear reactors of a nuclear power station, which could present a possible radioactive threat to humans, the environment and society under certain circumstances. In addition, as an important part of the Group's business operations, the Group needs to handle, store, transport and dispose of radioactive materials, such as low and medium-level radioactive waste and spent fuel, and other hazardous materials, including explosive or flammable materials used in the Group's electricity generating activities. Therefore, the Group's business involves certain significant potential risks.

Approximately half of the cost of nuclear fuel generally consists of the cost of natural uranium. The importation and trading of natural uranium is strictly regulated in China. The prices and availability of nuclear fuel are subject to fluctuations due to both domestic and international political and economic considerations which are beyond the Group's control. Factors that might impact the prices and availability of such products and services include increased demand due to worldwide and domestic growth of the nuclear energy sector, product shortages associated with an operating accident in a uranium mine, an internal or external event leading to political instability in a uranium-producing country and increased

regulatory oversight of the production of uranium or the provision of the services mentioned above. If the Group is unable to secure a stable supply of nuclear fuel, the operations of its nuclear power stations may be interrupted or delayed, which may adversely affect the Group's business, operating results and financial position.

The Group is also exposed to other substantial potential risks and liabilities associated with nuclear power generation, including the risks and liabilities which may be caused by one or several of the following factors: (i) ageing, defects, malfunctioning, inappropriate installation, control or operation of various equipment, systems and facilities, (ii) human errors or misconduct, strikes or disputes with the Group's labour force, (iii) external attacks, such as terrorist attacks and other third-party malicious acts, and (iv) natural disasters. Any of the above factors, if occurring individually or collectively, could cause significant disruptions or interruptions to the Group's operations, materially and adversely affect the Group's power generation activities or cause significant extra costs or expenses. These and other factors may also lead to nuclear accidents and other serious consequences, such as death or long-term illness in humans, including the Group's employees and the general public in a large geographic area, and long-term contamination of the environment, which could expose the Group to significant compensation and damages, clean-up costs, legal proceedings and other liabilities.

The Group has taken steps to adhere to high standards of risk control procedures applicable to the preparatory phase, construction phase, operation phase and decommissioning phase of the Group's nuclear power stations, in order to protect the public, the environment and society from the threat of radiation, ensuring the smooth operation of the nuclear power stations, and reducing the possibility of accidents. However, there can be no assurance that these measures will be effective under any circumstances. The Group, in conjunction with the public authorities, has also implemented safety measures aimed at countering external attacks. However, there can be no assurance that the above risks and uncertainties will not affect the safe and reliable operation of the Group's nuclear power stations or lead to any nuclear accident, thus causing harm to humans, the environment and society, and leading to partial or total closure of the Group's nuclear power stations for an extended period of time or resulting in significant liabilities. If any of these risks materialises, it could have a material and adverse effect on the Group's business, financial condition, results of operations and prospects.

Disruptions in coal supply and its transportation as well as increases in coal prices may adversely affect the normal operation of the Group's thermal power plants.

The Group's thermal power plants are primarily fuelled by coal. Before 31 December 2012, the Group obtained coal for the Group's power plants through a combination of purchases pursuant to key contracts and purchases in the open market. Effective from 1 January 2013, the NDRC cancelled the key contract regime, abolishing the coal-electricity dual track system; the coal and power companies now enter into contracts independently, and freely negotiate to determine prices. This may affect the ability of the Group to ensure a stable supply of coal for its thermal power plants. There can be no assurance that any disruptions in the supply of coal will not adversely affect the Group's business during certain periods.

Further, the PRC Government continues to promote market-oriented reforms for coal transportation, and has requested the relevant government departments to rationally allocate capacity and maintain relative stability based on the contracts signed by the suppliers and customers and their transport capacity, and has given priority transportation protection to larger medium-sized coal companies that have signed medium to long-term coal contracts. However, there can be no assurance that there will be adequate transportation capacity for all the Group's transportation needs. If lack of transport capacity causes delays or interruptions to the Group's coal transportation, it may adversely affect the Group's operations.

In addition, the Group's results of operations are sensitive to fluctuations in coal prices. The PRC Government has established a coal-electricity price linkage mechanism to allow power generation

companies to increase their power tariffs to cope with increases in the price of coal. However, such an increase is allowed only within a specific price fluctuation range according to the Circular of National Development and Reform Commission on the Matters Relating to Improvement of Linkage Mechanism for Coal and Electricity Price (*Fa Gai Jia Ge* [2015] No. 3169) which became effective on 1 January 2016. Since 2017, the coal price has remained high, which in general increases the cost of power generation for thermal power companies. In 2021, Chinese power generation companies' profit margins were substantially squeezed by a coal price rally. To further regulate the coal-related power transmission and distribution tariff, NDRC issued a notice (namely Notice of the National Development and Reform Commission on Further Deepening the Market-oriented Reform of the On-grid Tariff of Coal-fired Power Generation (國家發展改革委關於進一步深化燃煤發電上網電價市場化改革的通知)) allowing the market trading price of coal-fired power in sales contracts signed between power generation companies and users or distributors to be raised or lowered by up to 20 per cent. of the benchmark on-grid tariff, from the current 10 per cent. and 15 per cent., respectively, effective from 15 October 2021. The 20 per cent. limit for raising prices shall not be applied to energy-intensive users, who are likely to pay a higher price when power is in short supply. There are also no limits on the spot power price. However, there are still uncertainties concerning how these mechanisms will be implemented. There is no assurance that the Group will be able to adjust the Group's power tariff to pass on increases in the price of coal to the Group's customers.

The Group's hydropower business is dependent on hydrological conditions.

The Group's hydropower stations are dependent upon hydrological conditions prevailing from time to time in the broad geographic region in which its existing and future hydropower projects are located. There can be no assurance that water flow at the Group's project sites will be consistent with its expectations, or that climatic and environmental conditions will not change significantly from the prevailing conditions at the time its projects were made. Water flow varies each year or season and depends primarily on the levels of precipitation and seasonal changes. If hydrological conditions result in droughts or other conditions that negatively impact the Group's hydropower generation, the Group's hydropower business and results of operations could be materially and adversely affected.

The commercial viability and profitability of the Group's wind farms depend on the PRC government's policies and regulatory framework supporting renewable energy development.

The PRC Government has adopted policies and established a regulatory framework to encourage the development of wind power projects and to increase the proportion of electricity generated from wind power. PRC laws and regulations, such as the Renewable Energy Law, also provide economic incentives to companies engaged in the development of wind power projects. Such incentives include mandatory grid connection and dispatch of 100 per cent. of electricity generation from wind farms, on-grid tariff premiums (the on-grid tariffs for wind power are generally higher than those for coal power within the same province), and tax benefits, such as a refund of 50 per cent. of the VAT levied on electricity generation from wind power and other tax reduction plans. The on-grid tariff for electricity produced by wind farm projects as determined by the "government guided price" has been replaced by geographically unified tariffs, a form of the "government fixed price", which is more stable and predictable. The new on-grid tariffs continue to be subsidised by on-grid tariff premiums enjoyed by renewable energy projects in general.

The development and profitability of wind power projects in the PRC, including the Group's wind farms, are significantly dependent on policies and regulatory framework that support such development. For the years ended 31 December 2018, 2019 and 2020, the Group received government grants of RMB337.5 million, RMB208.4 million and RMB200.7 million, respectively, part of which represent various energy

saving subsidies granted by the PRC Government. There is no assurance that the governmental grants received by the Group will not continue to decrease or the PRC Government will not change or eliminate current incentives and favourable policies currently available to the Group at any time.

On 25 August 2011, the NEA promulgated the Provisional Regulations on Administration of Wind Power Development and Construction (風電開發建設管理暫行辦法) (the "**Provisional Regulations**"). According to the Provisional Regulations, the governmental authorities at the provincial level responsible for the approval of wind power investment and construction of wind power projects should record their annual plans for wind power development and for construction of wind farms with the NEA. If the projects approved are not included in the respective plans filed with the NEA, the projects shall not be entitled to receive dispatch services provided by local grid companies or the tariff surcharge from the national fund for development of renewable resources. The wind power industry generally regards these Provisional Regulations as a sign that the PRC Government authorities intend to put the approval and construction of wind projects under more severe administration and supervision. On 16 February 2012, NEA issued the Notice on Relevant Requirement Concerning Regulating Wind Power Development and Construction Administration (關於規範風電開發建設管理有關要求的通知), pursuant to which local governmental authorities are required to strictly carry out provisions under the Provisional Regulations.

On 11 May 2021, the NEA promulgated the Notice on Relevant Concerning for Wind Power and Photovoltaic Power Construction and Development of Year 2021 (關於2021年度風電、光伏發電開發建設有關事項的通知) (the "**2021 Requirement Notice**"). According to the 2021 Requirement Notice, the governmental authorities at the provincial level shall formulate the goal of utilisation for renewable energy subject to the Implementation of the Fourteenth Five-Year Plan for Renewable Energy Development (可再生能源發展"十四五"規劃), which is being formulated and estimated to be promulgated soon.

In addition, as the regulatory framework in the PRC for renewable energy is relatively new and still evolving, the implementation and enforcement of these policies, laws and regulations involve uncertainties and may differ from region to region in the PRC. Any reduction, discontinuation or unfavourable application of the policies and economic incentives for renewable energy could reduce demand for renewable energy which could have a material adverse effect on the Group's business, financial condition, results of operations or prospects. Furthermore, if these favourable policies and incentives were changed or discontinued to the Group's detriment before its wind farms or PV power plants reach the economies of scale necessary to become cost-effective in a non-subsidised market place, the Group could be forced to compete directly against producers of electricity from fossil fuels and other wind farms in the sale of electricity and the setting of tariffs, which could also have a material adverse effect on the Group's business, financial condition, results of operations or prospects.

If the PRC Government adopts new and stricter environmental laws and additional capital expenditure is required for complying with such laws, the operation and financial position of the Group's business operations may be adversely affected and the Group may be required to make more investment in compliance with these environmental laws.

Most of the Group's power plants, as with all coal-fired power plants, discharge pollutants into the environment. The Group is subject to central and local government environmental protection laws and regulations, which currently impose base-level discharge fees for various polluting substances and graduated schedules of fees for the discharge of waste substances. The amount of discharge fees is determined by the local environmental protection authority based on the periodic inspection of the type and volume of pollution discharges. In addition, such environmental protection laws and regulations also set the benchmark for the overall control of the discharge volume of key polluting substances. These laws and regulations impose fines for violations of laws, regulations or decrees and provide for the possible

closure by the central government or local government of any power plant which fails to comply with orders requiring it to cease or cure certain activities causing environmental damage. In 2011, the PRC Government promulgated new and more stringent standards on the discharge of polluting substances by thermal power plants, which also require thermal power plants to equip all units with denitrification facilities.

And the Group's coal mining operations also produce gaseous emissions, waste water and solid waste materials. Accordingly, the Group is subject to extensive and increasingly stringent environmental protection laws and regulations that impose fees for the discharge of pollutants and waste substances, require the establishment of reserves for reclamation and rehabilitation, and impose fines for serious environmental violations. Under the Law of Land Administration of the PRC promulgated on 25 June 1986 and amended on 28 August 2004, and the Land Rehabilitation Regulations issued by the State Council on 22 February 2011 and effective on 1 March 2011, coal producers must undertake measures to restore the mining site to its original state within a prescribed time frame if mining activities result in damage to arable land, grassland or forest. The rehabilitated land must meet rehabilitation standards, as required by law. A coal producer's failure to comply with this requirement or its failure to return the mining site to its original state will result in the imposition of fines, rehabilitation fees and/or rejection of applications for land use rights by the local bureau of land and resources.

For example, one of the listed subsidiaries of the Group, Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia ("**Opencut Coal Industry**"), entered into an ecological environment damage compensation agreement ("**Compensation Agreement**") in 2019, under which it paid an indemnity to Tongliao Municipal People's Government of Inner Mongolia due to the ecological environment damage caused during the coal mining operation. In accordance with the Compensation Agreement, Opencut Coal Industry also undertook to rehabilitate the grassland where its western and northern opencut coal mines were located on. The Group has completed the payment of ecological restoration and regulatory evaluation fees of approximately RMB30 million and RMB300,000, respectively. Further, in September 2020, National Energy Administration received public reports on environmental issues in one of the Group's subsidiaries. Further to this, the Group initiated restoration of the destroyed vegetation around the relevant wind generators. Although the Group believes the current cases of environmental-related violations does not have an adverse impact on the Group's business, financial condition, results of operations and prospects, there is no guarantee this will be the case in future.

The Group attaches great importance to the environmental impact of the Group's business operations. The Group has implemented various measure of pollution evaluation, supervision and control on its business operations, especially on its coal-fired power generation and coal mining operations. The Group believes that the Group's current environmental protection systems and facilities are adequate for the Group to comply with applicable central government and local government environmental protection laws and regulations. Besides, the Group will require all its members who run the coal business to comply with the Guiding Opinions on Cancelling Mining Geological Environment Governance Restoration Deposit and Establishing Mining Geological Environment Governance Restoration Fund (Caijian [2017] No. 638) to maintain the reserve fund of environmental governance and make the relevant investment plans. However, the PRC Government may impose new, stricter laws and regulations on environmental protection. Such stringent standards, together with the increase in discharge fees, will result in the increase of environmental protection expenditure and operating costs of power plants and mining operations such as the Group's, and may have an adverse impact on the Group's operating results.

The PRC is a party to the Framework Convention on Climate Change ("**Climate Change Convention**"), which is intended to limit or capture emissions of "greenhouse" gases, such as carbon dioxide. Ceilings on such emissions could limit the production of electricity from fossil fuels, particularly coal, or increase

the costs of such production. In November 2016, the Paris Agreement under the Climate Change Convention came into force. The PRC has ratified the Paris Agreement and has committed to, among others, lower carbon dioxide emissions and achieve the peaking of carbon dioxide emissions around 2030. The PRC has also committed to increasing the share of non-fossil fuels in its primary energy consumption. Should the PRC Government implement measures to achieve such commitments to reduce carbon dioxide emissions and reduce its reliance on the production of electricity from coal and other fossil fuels, the Group's business prospects could be adversely affected.

Accidents at nuclear power generation facilities in any country or region, regardless of the causes of such accidents, may lead the competent authorities to substantially tighten nuclear power station operating requirements or to refuse to authorise the construction or commencement of operations of new stations or to reject proposed extensions of the operating life of existing stations.

Accidents at nuclear power generation facilities (whether the Group's facilities or any other nuclear power generation facilities in other countries or regions), especially those that result in serious radioactive contamination or irradiation, regardless of the causes of such accidents, may turn public opinion or the opinion of specific interest groups against nuclear power or lead the competent authorities to take various actions, including but not limited to: (i) substantially tightening power station operating requirements (such as the requirements for more extensive or more expensive insurance coverage or more stringent safety standards) or requesting the modification of power generating facilities or operational procedures, (ii) ordering a temporary suspension or permanent termination or decommissioning of nuclear facilities in operation ahead of schedule, (iii) suspending or cancelling all the ongoing nuclear power station development projects, (iv) refusing to approve the construction or entering into operation of new power stations, (v) rejecting proposals for extending the operating life of existing power stations, (vi) contemplating a full cessation of the use of nuclear power to generate electricity or (vii) amending the relevant laws or regulations. The relevant authorities in the PRC may take such or similar decisions in the future, which may have a material and adverse effect on the Group's operations and/or the Group's ability to obtain financing or expand its nuclear power business. If the public in other countries or regions is against nuclear power generation, or if their governments take such or similar measures, the Group's overseas expansion plan may be affected.

The businesses or projects the Group develops, acquires or invests in the future may not be as profitable as it expects, or at all, and may subject the Group to additional risks and liabilities.

The businesses that the Group develops, acquires or invests in may not be as profitable as it expects, or at all. Acquisitions or investments that the Group carries out in the future may cause it to incur liabilities, or result in the impairment of goodwill or other intangible assets or other related expenses. Business expansion carried out through acquisitions and investments could also expose the Group to successor liability and litigation resulting from the actions of the company it has acquired or in which it made an investment before or after the acquisition or investment. The due diligence that the Group conducts in connection with an acquisition or investment may not be sufficient to discover unknown liabilities, and any contractual guarantees or indemnities that the Group receives from the sellers of the companies it has acquired or invested in may not be sufficient to protect it from, or compensate it for, actual liabilities. Any material liability associated with an acquisition and investment could adversely affect the Group's reputation and reduce the benefits of the acquisition and investment. Any of the events mentioned above could have a material and adverse effect on the Group's business, financial condition, results of operations and prospects.

Natural disasters, epidemics and other acts of God, including the ongoing COVID-19 pandemic, may materially and adversely affect the Group's business, results of operations and financial condition.

The Group's business may be affected by natural disasters, epidemics and other acts of God which are beyond the Group's control. Outbreak of epidemics such as Middle East Respiratory Syndrome (MERS),

Severe Acute Respiratory Syndrome (SARS), H5N1 avian flu, human swine flu (also known as Influenza A (H1N1)), H7N9, Zika Virus Disease or COVID-19 may have a material adverse impact on the economic and social condition in the affected regions. See also "– *The COVID-19 pandemic has had a negative impact on worldwide economic activity and the Group's operations and may have an ongoing impact on the Group's business.*"

The Group's business operations are also subject to risks arising from natural disasters, such as typhoons, floods and earthquakes. The Group takes precautions in the design, construction and operation of power plants, but there can be no assurance that natural disasters or other circumstances such as system failure, equipment malfunction, risks currently unknown or human errors, will not result in any accident or business interruption. Safety measures were incorporated into the design of the Group's facilities and sites, and the Group has taken protective measures. Nonetheless, like any safety measures intended to counter an external threat, there can be no assurance that these will prove fully effective in all cases.

If an accident were to occur at one or more of the Group's facilities, whether caused by natural disasters or other reason, the Group's business may be interrupted, and the Group may also be liable for casualties, property loss, environmental contamination or other damages caused or may be subject to investigations, legal proceedings and claims in relation to such accident. Accidents caused by any natural disasters or other factors may result in various serious damages, and other parties may attempt to make the Group liable for such events for the reason that the protective measures taken by the Group are not sufficient, which may have a material and adverse effect on the Group's business, results of operations and financial condition.

The COVID-19 pandemic has had a negative impact on the worldwide economic activity and the Group's operations and may have an ongoing impact on the Group's business.

The ongoing COVID-19 pandemic has affected China and many countries in the world and there have been increased initial infection and fatality rates across the world. On 11 March 2020, the World Health Organisation declared the COVID-19 outbreak a pandemic. The global outbreak of COVID-19 has created negative economic impact and increased volatility in the PRC and global market, which may in turn adversely affect the Group's business. At the beginning of 2021, the Company recorded a decrease in revenue compared to the corresponding period the previous year, primarily due to reduced demand for power as a result of the pandemic. However, the Company recorded an increase in revenue for the year ended 31 December 2020 as compared to the previous year and an increase in revenue for the six months ended 30 June 2021 as compared with the corresponding period the previous year, due to recovery from the COVID-19 outbreak. Despite the widespread use of vaccines, there are also new strains emerging in some countries and there is no assurance that the pandemic will not escalate, or that the Group will not continue to be affected adversely by it.

The Group depends on key management personnel and professional technicians.

The Group's success is built substantially upon the continual efforts and service of its experienced management team and specialised technical personnel. There can be no assurance that the Group will be able to retain its key management personnel or technical staff. If any of the Group's key management personnel stops working in his or her present position, or if any of them fails to perform their obligations under their employment agreements, the Group may not be able to find a suitable replacement. In addition, since the operation of certain power plants, such as a nuclear power station or PV power station, is very complex, the Group is greatly dependent on the specialised services provided by its operational team whose members have been specially trained for a long time, especially the operational team members in key positions. If the Group fails to retain its senior management or operations team, its business may be

adversely affected. The Group's future growth and success will also depend to a large extent on its ability to retain or recruit suitable and qualified individuals to strengthen its management, operational, technical and research teams. There can be no assurance that the Group will be able to cultivate, recruit and retain the key personnel that the Group needs to achieve its business objectives, and if the Group is unable to do so that may lead to material and adverse impacts on the Group's business, financial condition and results of operations.

The Group's operations depend on its research and development capabilities, which may not always produce positive results.

The Group's ability to improve its power generating capabilities and to undertake high-profile projects depend largely on its research and development capabilities. However, research and development programmes require considerable human resources, time and capital investment, and the benefits of any such investment may not yield immediate tangible benefits. There can be no assurance that the Group's research and development efforts will be effective. Even if such efforts are successful, the Group may be unable to apply such new technologies to products in satisfactory ways.

If the Group is unable to maintain or enhance its research and development capabilities, the Group may be disadvantaged against its competitors both domestically and overseas, thereby adversely affecting its businesses, financial condition, results of operations and future development. The Group is often engaged to undertake large-scale, complicated projects that require it to develop or adopt new technology and construction methods, which could put a strain on its research and development resources. The use of new technology and construction methods may also result in experimental failures, increased costs and unstable conditions, which may adversely affect the profitability of some of the Group's projects.

Assumptions applied to the Group's investment analyses and feasibility studies may not be accurate, and thus the Group's actual return on investments, operational results, and overall growth may be materially and adversely affected.

In performing investment analysis and feasibility studies for the Group's investment and development targets, the Group considers factors such as: (i) demand for power and growth potential in the areas where the power projects are located, (ii) increase in power generation capacity in the locality, (iii) the average tariff of power projects of similar types and capacity, (iv) the quality of transmission systems to the local power grids, (v) facilities and technology at the power projects and (vi) the ability to retain existing debt financing for the project or obtain new financing. In the PRC, with the rapid development of the clean energy industry in recent years and the uncertainty regarding the rate of future economic growth, there is some increased risk of power projects being built based on inaccurate or incomplete data, such as on demand, tariff and financing. As a result, the assumptions we use to perform the Group's internal investment analyses and feasibility studies may not be accurate or complete. If any one of the Group's observations or assumptions, or a combination thereof, proves to be inaccurate, then the Group's estimated return on investments, operational results and the Group's overall growth may be materially and adversely affected.

Failure to renew the Group's power purchase agreements ("PPAs") could result in a reduction or complete loss of revenue from the affected power projects, which would have a materially adverse effect on the Group's business, revenue and results of operations.

The Group may enter into master and/or detailed PPAs with the grid companies to which the Group's power projects are connected. If the Group is unable to renegotiate and renew a PPA or master PPA with the grid companies when their original terms expire, there is no assurance that it would be able to obtain

alternative customers to replace that power grid and purchase the power generated by the Group's project, as there may be only a very limited number of grids to each power project and no or limited neighbouring industrial sites ready to take up the power.

The generation of wind power depends heavily on suitable wind conditions. If wind conditions are unfavourable or below the Group's estimates, the Group's power generation, and therefore the Group's revenue, may be substantially below the Group's expectations.

The electricity and revenue generated by a wind power project are highly dependent on climatic conditions, particularly wind conditions, which vary across seasons and regions and are difficult to predict. Turbines will only begin to operate when the wind speed reaches a certain minimum velocity, and must be disconnected when the wind speed exceeds a certain maximum velocity to avoid damage. If wind speed falls outside the operating ranges, which vary by turbine model and manufacturer, the amount of electricity the Group generates will decrease or cease. There can be no assurance that the wind conditions at any given wind site will always fall within such ranges. The Group bases its investment decisions for each wind power project on the findings of feasibility studies conducted onsite before starting construction. However, actual climatic conditions at a wind site, particularly wind conditions, may not conform to the findings of these feasibility studies, and, therefore, the Group's wind power projects may not meet anticipated generation levels, which could adversely affect the Group's forecasted profitability.

There can be no assurance that actual climatic conditions at any project site will conform to the Group's assumptions during the project planning phase. As a result, it cannot be guaranteed that the Group's wind farms will meet their anticipated electricity output. The Group's wind farms have natural seasonal variation that the Group tracks historically. In the Group's wind farms in northern China, the seasons with the highest average wind speed are spring and autumn, whereas summer generally has the lowest average wind speed. In contrast, in the Group's coastal wind farms, summer is the windiest season, generally allowing for an increase in power generation. If seasonal variations and fluctuations in the wind conditions in the regions in which the Group currently operates do not conform to the Group's historical observations or do not meet the Group's assumptions, unexpected fluctuations in the electricity output of the Group's wind farms may occur. Similarly, extreme wind or weather conditions could reduce the Group's operational efficiency and power generation, which could materially and adversely affect the Group's business, financial condition and results of operations.

The Group may fail to keep pace with technological changes in the rapidly evolving renewable energy industry.

The technologies used in the renewable energy industry are evolving rapidly, and in order to remain competitive and expand the Group's business, the Group must be able to respond to these technological changes. The Group may be unable to update its technologies swiftly or regularly, possibly rendering the Group's operations less competitive. Failure to respond to current and future technological changes in the renewable energy industry in an effective and timely manner may have a material adverse effect on the Group's business, financial condition or results of operations.

The Group's business benefits from certain preferential tax treatment and other government incentives. Expiration of, or changes to, these incentives could adversely affect the Group's operating results.

Under the PRC EIT Law, a uniform 25 per cent. EIT rate is generally applied to all types of enterprises, except where a specific preferential rate applies. PRC tax laws and regulations provide certain preferential tax treatments to different enterprises, industries and locations. Some of the Group's subsidiaries enjoyed, or are currently enjoying, preferential tax treatments applicable to enterprises that are (i) located in areas under the Western Development Programme of the PRC, (ii) High-New Technology Enterprises and (iii) engaged in public infrastructure projects. Some of the Group's subsidiaries are entitled to VAT refunds for

their revenue from the sale of electricity or heat generated from incineration plants or wind farms and revenue from the sale of heat to residential customers. These preferential tax treatments will expire in accordance with the applicable PRC laws and regulations and are also subject to changes as may be required by PRC laws and regulations. The Group also receives government grants and subsidies for its research activities.

The Group's effective income tax rate fluctuates as the preferential tax treatment for its various subsidiaries commences and expires at different times. Any change or elimination of such preferential tax treatments may materially and adversely affect the Group's results of operations and financial condition. There can be no assurance that the current favourable policies or the various incentives available to the Group will not be withdrawn or revoked by the PRC Government. If the favourable government policies and incentives are reduced or are no longer available in the future, the Group's results of operations in the future may be materially and adversely affected.

The Group is large and complicated, and may be restructured, and there is no assurance that its efforts to further integrate all its business and coordinate among different subsidiaries will be successful.

As at 31 December 2020, the Group had over a thousand consolidated subsidiaries located across the PRC and other jurisdictions. The Group has a portfolio of businesses, which exposes it to challenges in managing its ancillary business segments. The Group's management may experience difficulty ensuring that sufficient attention and support is provided to each of its business segments, and may also not possess the necessary experience or be able to focus on what drives each business segment. In addition, the large scale and scope of the Group's operations make central coordination of activities a challenging task. There may be overlap in the operating activities of certain of its subsidiaries in terms of geography, product type and/or business scope. The Group may be subject to restructuring pursuant to the reform of state-owned enterprises by SASAC, which may result in SASAC requiring the Group to acquire or divest certain of its subsidiaries or merge with other state-owned enterprises, and there can be no assurance that the Group will receive fair compensation, or any compensation at all, as a result of such restructuring activities.

The Group intends to maintain the independent operation of its subsidiaries, which may result in certain subsidiaries competing directly in certain areas. While the Group is of the view that such competition amongst some of its subsidiaries would not have a material adverse impact on its overall business operation and market position, the effect of such internal competition on its financial results is uncertain.

Fluctuations in exchange rates could have an adverse effect on the Group's results of operations.

A substantial portion of the Group's revenues and cost of sales is denominated in Renminbi. However, as the Group conducts part of its businesses overseas, and the Group has made and expects to continue to make equity and other investments in overseas projects, the Group's foreign exchange-denominated assets and liabilities are expected to increase as a result as the Group further expands its overseas businesses. The Group is therefore subject to significant risks associated with foreign currency exchange fluctuations.

The value of the Renminbi against the U.S. dollar and other currencies may fluctuate and is affected by, among other things, changes in China's political and economic conditions. The conversion of Renminbi into foreign currencies, including U.S. dollars, is based on rates set by the People's Bank of China (the "**PBOC**"). On 21 July 2005, the PRC Government changed its policy of pegging the value of the Renminbi to the U.S. dollar. Under the new policy, the Renminbi is permitted to fluctuate within a narrow and managed band against a basket of certain foreign currencies. The PBOC then enlarged the floating band for the trading prices in the interbank spot exchange market of Renminbi against the U.S. dollar several times. On 11 August 2015, the PBOC announced that, to improve the central parity quotations of Renminbi

against the U.S. dollar, market-makers were authorised to provide central parity quotations to the China Foreign Exchange Trading Centre daily before the opening of the interbank foreign exchange market with reference to the interbank foreign exchange market closing rate of the previous day, the supply and demand for foreign exchange as well as changes in major international currency exchange rates. On 11 December 2015, the China Foreign Exchange Trade System ("**CFETS**"), an organisation under the PBOC, published the CFETS Renminbi exchange rate index for the first time, which weighs Renminbi based on 13 currencies, to guide the market in order to measure the Renminbi exchange rate from a new perspective. Following the announcement by the PBOC on 11 August 2015, the Renminbi depreciated significantly against the U.S. dollar. Since then, the Renminbi has experienced further fluctuation in value against the U.S. dollar. On 5 August 2019, PBOC set the Renminbi's daily reference rate above 7 per U.S. dollar for the first time in over a decade amidst an uncertain trade and global economic climate. The PRC Government may adopt further reforms of its exchange rate system, including making the Renminbi freely convertible in the future.

These changes in policy have resulted in fluctuations of the Renminbi against the U.S. dollar. There can be no assurance that such exchange rate will remain stable against the U.S. dollar or other foreign currencies in the market. While the international reaction of the Renminbi revaluation has generally been positive, there remains significant international pressure on the PRC Government to adopt an even more flexible currency policy, which could result in further and more significant depreciation of the Renminbi against the U.S. dollar or other foreign currencies. Further depreciation of the Renminbi against these currencies may lead to an increase in the costs of the Group's overseas operations. Fluctuations in exchange rates may adversely affect the value, translated or converted into U.S. dollars or Euro, of the Group's net assets, earnings and any declared dividends.

The Group's auditors may subject to penalties by relevant PRC authorities from time to time.

BDO, the Group's independent auditor, is a registered accounting firm in the PRC supervised by relevant PRC regulatory agencies, including the MOF and CSRC.

During the past few years, regulatory authorities including CSRC and its local branches have announced their administrative decisions against BDO in relation to its work for various companies. These companies were all unrelated to the Group. The decisions involved confiscation of revenue, temporary suspension of certain business, requirements to rectify any audit irregularities and fines for both the audit firm and the partners involved in the relevant audit work. BDO has confirmed that they have taken the required rectification measures and made the required written report to the relevant regulatory authorities. As at the date of this Offering Circular, BDO has not been suspended with respect to any part of its business. If BDO is found to be deficient in performing its audit tasks for other companies, it could affect investors' confidence in companies and financial statements audited by it.

There is no assurance that there will not be new investigations or administrative measures taken by relevant regulatory authorities or potential litigation proceedings initiated against BDO in the future, nor can there be any assurance that further negative news about BDO would not have a material and adverse effect on the Group. Prospective investors should consider these factors prior to making any investment decision.

The interim financial information of the Company contained in this Offering Circular have not been reviewed or audited.

The Parent's Consolidated Half-Year Financials included in this Offering Circular have not been audited or reviewed by BDO or any other person. Consequently, such financial information should not be relied

upon by potential investors to provide the same type or quality of information associated with information that has been subject to an audit or review. Such financial information should not be taken as an indication of the expected financial condition or results of operations of the Company for the full financial year ending 31 December 2021.

None of the Joint Lead Managers or any of their respective affiliates, directors or advisers makes any representation or warranty, express or implied, regarding the accuracy of the Parent's Consolidated Half-Year Financials and the financial information contained therein or their sufficiency for an assessment of, and potential investors must exercise caution when using such data to evaluate the Company's financial condition and results of operations.

In addition, the Parent's Consolidated Half-Year Financial Statements have been prepared in Chinese only and the Financial Statements Translation have been prepared and included in this Offering Circular for reference only. None of the Joint Lead Managers or their respective affiliates, directors, employees and advisers has independently verified or checked the accuracy of the Financial Statements Translation and can give no assurance that the information contained in the Financial Statements Translation is accurate, truthful or complete.

RISKS RELATING TO DOING BUSINESS IN THE PRC

The Group's results of operations may be adversely affected by changes in general economic conditions in China.

A large majority of the Group's revenue is derived from power sales in the PRC. The Group relies on domestic demand for electric power to achieve revenue growth. Domestic demand for electric power is materially affected by industrial development, growth of private consumption and overall economic growth in the PRC. The power generation sector in China is significantly influenced by China's economic conditions and the economic measures undertaken by the PRC Government. To date, the Group's results of operations and business growth have benefited from the economic growth and industrialisation in China, which have led to increased business prosperity across the power generation sector. Demand for the Group's electricity could be affected by numerous factors, many of which are beyond its control, including but not limited to:

- an economic downturn in China or any regional market in China;
- economic policies and initiatives undertaken by the PRC Government; and
- changes in the PRC or regional business or regulatory environment affecting the power generation sector.

The global crisis in financial services and credit markets in 2008 caused a slowdown in the growth of the global economy, and the PRC economy has displayed signs of slowdown as evidenced by a decrease in the growth rate of its gross domestic product ("**GDP**") in recent years. In 2020, the PRC reported a GDP of RMB101.6 trillion, representing year-on-year growth of 3.0 per cent., according to the statistics released by the National Bureau of Statistics of China at China on https://data.stats.gov.cn/english/easyquery.htm?cn=C01. Although the PRC Government has recently taken several measures and actions with the aim of increasing investors' confidence in the PRC economy in the PRC, there can be no assurance that those measures will be effective. In addition, recent macroeconomic events have had or could result in an adverse effect on the global and the PRC economy, such as the U.S.-China trade conflicts and Brexit. If the PRC's economic growth slows down or if the PRC

economy experiences a recession, the growth of power demand may also slow down or stop, and the Group's business prospects may be materially and adversely affected.

PRC economic, political and social conditions as well as government policies could adversely affect the Group's business.

The PRC economy differs from the economies of most developed countries in many respects, including government involvement, level of development, economic growth rate, control of foreign exchange, and allocation of resources. The PRC economy has been transitioning from a planned economy to a more market-oriented economy. In recent years, the PRC Government has implemented measures emphasising market forces for economic reform, the reduction of state ownership of productive assets and the establishment of sound corporate governance in business enterprises. However, the PRC Government continues to play a significant role in regulating industrial development, the allocation of resources, production, pricing and management, and there can be no assurance that the PRC Government will continue to pursue a policy of economic reform or that any such reforms will not have an adverse effect on the Group's business.

The Group's operations and financial results could also be materially and adversely affected by changes in political, economic and social conditions or the relevant policies of the PRC Government, such as changes in laws and regulations (or the interpretation thereof). For example, the PRC Government may decide to change its current policies with respect to power pooling, and the Group's power plants and projects which are currently not subject to power pooling may become subject to power pooling. The power pooling process typically results in lower selling prices than the tariffs received from the power dispatched as part of the planned output, and as such, this could have adverse impact on the Group's results of operations. The Group's operating results and financial condition may also be materially and adversely affected by other changes in taxation, changes in on-grid tariff-setting mechanisms for the Group's power plants and projects, changes in the usage and costs of state-controlled transportation services, and changes in state policies affecting the power and coal industries. The Group's operations and financial results, as well as its ability to satisfy its obligations under the Preference Shares, could also be materially and adversely affected by changes in measures which might be introduced to control inflation, changes in the rate or method of taxation, the imposition of additional restrictions on currency conversion and the imposition of additional import restrictions.

Turmoil in the financial markets could increase the Group's cost of borrowing and impede access to or increase the cost of financing its operations and investments.

The availability of credit to entities operating within emerging markets, including the Group, is significantly influenced by levels of investor confidence in such markets as a whole. Any factors that may affect market confidence could affect the costs or availability of funding for entities within emerging markets. Historically, challenging market conditions in emerging markets have resulted in reduced liquidity, widening of credit spreads, lack of price transparency in credit markets, a reduction in available financing and a tightening of credit terms. For example, in 2015, China's stock markets experienced significant turmoil and disruption. Throughout June and early July of 2015, the Shanghai Composite Index experienced significant declines and many PRC-listed companies were subject to trading suspensions on major stock exchanges. The PRC Government responded by cutting interest rates, suspending initial public offerings and starting investigations into market manipulation in an effort to stabilise the market. Due to its increasing financial reliance upon China, Hong Kong's stock markets experienced a similar fluctuation during that period, and the Hang Seng Index had a record-breaking slump in a single day. As the Company has two principal subsidiaries whose shares are listed on the Shanghai Stock Exchange (namely Shanghai Electric Power Company Limited and SPIC Yuanda Environmental-Protection Co., Ltd.), three principal subsidiaries whose shares are listed on the Shenzhen Stock Exchange (namely Opencut Coal Industry, SPIC Dongfang New Energy Corporation and Jilin Electric Power Co., Ltd.) and one principal subsidiary whose shares are listed on the Hong Kong Stock Exchange (namely China Power International

Development Ltd.), significant fluctuations in these financial markets could increase the costs of financing activities, and therefore cause substantial adverse effects on the business operations and investments of the listed companies individually and the Group as a whole.

Interpretation of PRC laws and regulations involves significant uncertainties.

The PRC legal system is based on written statutes. Prior court decisions may be cited for reference but have limited precedential value. Since 1979, the PRC Government has been developing a comprehensive system of commercial laws, and considerable progress has been made in introducing laws and regulations dealing with economic matters such as foreign investment, corporate organisation and governance, commerce, taxation and trade. However, as these laws and regulations are relatively new, and due to the limited volume of judicial interpretation and the lack of precedential force of published cases, interpretation and enforcement of these laws and regulations involve significant uncertainties. In particular, the PRC power generation industry is a highly regulated industry. Many aspects of the Group's business, such as the connection and dispatch of power generation and the setting of on-grid and retail tariffs are subject to negotiation with the PRC Government and the relevant government authority's approval. As the PRC legal system develops together with the PRC power generation industry, there is no assurance that changes in such laws and regulations, or in their interpretation or enforcement, will not have a material adverse effect on the Group's business operations.

Furthermore, the administration of PRC laws and regulations may be subject to a certain degree of discretion by the executive authorities. This has resulted in the outcome of dispute resolutions not being as consistent or predictable compared with more developed jurisdictions. In addition, it may be difficult to obtain a swift and equitable enforcement of laws in the PRC, or the enforcement of judgments by a court of another jurisdiction. These uncertainties relating to the interpretation and implementation of PRC laws and regulations may adversely affect the legal protections and remedies that are available to the Group in its operations and to holders of the Preference Shares.

Certain PRC regulations governing PRC companies are less developed than those applicable to companies incorporated in more developed countries.

Most of the Company's subsidiaries and associates are established in the PRC and are subject to PRC regulations governing PRC companies. These regulations contain certain provisions that are required to be included in joint venture contracts, articles of association and all other major operational agreements of these PRC companies, and are intended to regulate the internal affairs of these companies. These regulations in general, and the provisions for the protection of shareholders' rights and access to information in particular, are less developed than those applicable to companies incorporated in Hong Kong, the United States, the United Kingdom and other developed countries or regions.

It may be difficult to effect service of legal process, enforce foreign judgments or bring original actions in the PRC based on other foreign laws against the Group.

The PRC does not have treaties providing for the reciprocal recognition and enforcement of judgments of courts in the United States, the United Kingdom, Japan and many other countries. Therefore, it may not be possible for investors to effect service of process upon those persons in the PRC or to enforce against them in the PRC any judgments obtained from non-PRC courts. In addition, recognition and enforcement in the PRC of judgments of a court of any other jurisdiction in relation to any matter not subject to a binding arbitration provision may be difficult or even impossible.

RISKS RELATING TO THE PREFERENCE SHARES, THE KEEPWELL DEED, THE INTRAGROUP FINANCING AGREEMENTS AND THE FINANCING GUARANTEES

The Issuer is a newly incorporated special purpose vehicle and will have no business or assets other than those related to the Preference Shares, the Intragroup Financing Agreements and the Financing Guarantees.

The Issuer is a newly incorporated entity. The Issuer intends to on-lend the entire gross proceeds from the issue of the Preference Shares to the Financing Recipients pursuant to the Intragroup Financing Agreements. The Issuer will not carry on any business activity and not incur or have outstanding any indebtedness for moneys borrowed or raised (whether senior or subordinated), other than (a) borrowing activities and activities in connection with the issue of the Preference Shares or the entering into each Financing and the Financing Guarantees and any other activities reasonably incidental thereto; and (b) the entry into any shareholders' loan that ranks or is expressed to rank, by their terms or by operation of law, in right of payment behind the claims of the Preference Shareholders. Accordingly, the Issuer's ability to make payments on the Preference Shares will depend on receipt of distributions and principal payments under the Intragroup Financing Agreements from the Financing Recipients and the Financing Guarantees and will depend on receipt of amounts under the Financing Guarantee from the Company and will be dependent on the Group financial condition and results of operation, in particular those of the Financing Recipients and the Company.

The Keepwell Deed is not a guarantee in respect of payments of Dividend, Arrears of Dividend, Additional Dividend Amount, Liquidation Preference or any amounts under the Preference Shares and Holders will have no recourse to the Keepwell Deed or directly to the Company in the event of failure to pay on the part of the Issuer.

Concurrent with the issue of the Preference Shares, the Company will execute the Keepwell Deed in which the Company will provide certain undertakings in respect of the Issuer, the Preference Shares, each Financing and the Financing Guarantees, including to ensure that the Issuer has sufficient liquidity and distributable reserves for timely payment by the Issuer of any amounts due and payable under or in respect of the Preference Shares in accordance with the Conditions, the Articles of Association, the Trust Deed and the Agency Agreement. However, the Company will not guarantee payment of Dividends or other amounts payable under the Preference Shares, and Holders will have no direct recourse against the Company pursuant to the Keepwell Deed with respect to payment of amounts due under the Preference Shares.

An active trading market for the Preference Shares may not develop.

The Preference Shares are a new issue of preference shares for which there is currently no trading market. There can be no assurance as to the liquidity of the Preference Shares or that an active trading market will develop or as to liquidity or sustainability of any such market, the ability of holders to sell their Preference Shares or the price at which holders will be able to sell their Preference Shares. If the Preference Shares are allocated to a limited group of investors, and a limited number of investors hold a significant proportion of the Preference Shares, liquidity will be restricted and the development of a liquid trading market for the Preference Shares will be affected. If a market does develop, it may not be liquid and the Preference Shares could trade at prices that may be higher or lower than the initial issue price depending on many factors, including prevailing interest rates, the Group's operations and the market for similar preference shares. The Joint Lead Managers are not obligated to make a market in the Preference Shares and any such market making, if commenced, may be discontinued at any time at the discretion of the Joint Lead Managers. Therefore, investors may not be able to sell their Preference Shares easily or at prices that will provide them with a yield comparable to similar investments that have a developed secondary market.

In addition, Preference Shareholders should be aware of the prevailing and widely reported global credit market conditions (which continue at the date of this Offering Circular), whereby there is a general lack of liquidity in the secondary market. Such lack of liquidity may result in investors suffering losses on the Preference Shares in secondary resales even if there is no decline in the performance of the assets of the Group. It is not possible to predict which of these circumstances will change and whether, if and when they do change, there will be a more liquid market for the Preference Shares and instruments similar to the Preference Shares at that time. Although application has been made for the listing of the Preference Shares on the SGX-ST, no assurance can be given as to the liquidity of, or trading market for, the Preference Shares. In addition, the Preference Shares are being offered pursuant to exemptions from registration under the Securities Act and, as a result, investors will only be able to resell their Preference Shares in transactions that have been registered under the Securities Act or in transactions not subject to or exempt from registration under the Securities Act.

The liquidity and price of the Preference Shares following this offering may be volatile.

If an active trading market for the Preference Shares were to develop, the price and trading volume of the Preference Shares may be highly volatile. Factors such as variations in the revenues, earnings and cash flows of the Group, proposals of new investments, strategic alliances and/or acquisitions, interest rates and fluctuations in prices for comparable companies, changes in the power industry and competition and general economic conditions could cause the price of the Preference Shares to change. Any such developments may result in large and sudden changes in the volume and price at which the Preference Shares will trade. There can be no assurance that these developments will not occur in the future.

The Preference Shares may not be a suitable investment for all investors.

Each potential investor in any Preference Shares must determine the suitability of that investment in light of its own circumstances. In particular, each potential investor should:

- have sufficient knowledge and experience to make a meaningful evaluation of the Preference Shares, the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees, the merits and risks of investing in the Preference Shares and the information contained or incorporated by reference in this Offering Circular;

- have access to, and knowledge of, appropriate analytical tools to evaluate, in the context of its particular financial situation, an investment in the Preference Shares and the impact such investment will have on its overall investment portfolio;

- have sufficient financial resources and liquidity to bear all of the risks of an investment in the Preference Shares, or where the currency for principal or dividend payments is different from the potential investor's currency;

- understand thoroughly the terms of the Preference Shares, the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees and be familiar with the behaviour of any relevant indices and financial markets; and

- be able to evaluate (either alone or with the help of a financial adviser) possible scenarios for economic, interest rate and other factors that may affect its investment and its ability to bear the applicable risks.

Additionally, the investment activities of certain investors are subject to legal investment laws and regulations, or review or regulation by certain authorities.

The Parent's obligations under the Financing Guarantees will be structurally subordinated to all existing and future indebtedness and other liabilities of each of the Parent's existing and future subsidiaries, and effectively subordinated to the Parent's secured debt to the extent of the value of the collateral securing such indebtedness.

The Issuer was established by the Parent for the purpose of undertaking borrowing activities such as the issuance of the Preference Shares and other activities reasonably incidental thereto. The Issuer does not expect to have any material assets other than each Financing and the Financing Guarantees and its ability to make payments under the Preference Shares will depend on its receipt of timely payments from the Financing Recipients under the Intragroup Financing Agreements or the Parent under the Financing Guarantees.

The Financing Guarantees will be structurally subordinated to any debt and other liabilities and commitments, including trade payables and lease obligations, of the Parent's existing and future subsidiaries, whether or not secured. The Parent's obligations under the Financing Guarantees will not be guaranteed by any of the Parent's subsidiaries, and the Parent's ability to make payments under the Financing Guarantees depends partly on the receipt of dividends, distributions, interest or advances from its subsidiaries. The ability of such subsidiaries to pay dividends to the Parent is subject to various restrictions under applicable laws. The Parent's subsidiaries are separate legal entities that have no obligation to pay any amounts due under the Financing Guarantees or make any funds available therefore, whether by dividends, loans or other payments. The Parent's right to receive assets of any of the Parent's subsidiaries, upon that subsidiary's liquidation or reorganisation, will be effectively subordinated to the claim of that subsidiary's creditors (except to the extent that the Parent are creditors of that subsidiary). Consequently, the Financing Guarantees will be effectively subordinated to all liabilities, including trade payables and lease obligations, of any of the Parent's subsidiaries and any subsidiaries that the Parent may in the future acquire or establish. The outstanding indebtedness of the subsidiaries of the Parent may also contain covenants restricting the ability of such subsidiaries to pay dividends in certain circumstances for so long as such indebtedness remains outstanding. Moreover, the Parent's percentage interests in its subsidiaries and joint ventures could be reduced in the future.

Each Financing Guarantee will constitute direct unconditional, unsecured and unsubordinated obligations of the Company, and the obligations of the Company under each Financing Guarantee will, save for such exceptions as may be provided by applicable legislation, (i) rank *pari passu* with all other outstanding unsecured and unsubordinated obligations of the Company, present and future and (ii) be effectively subordinated to all of the Parent's present and future secured indebtedness to the extent of the value of the collateral securing such obligations. Accordingly, claims of secured lenders, whether senior or junior, with respect to assets securing their loans will be prior with respect to those assets. In the event of the Parent's bankruptcy, insolvency, liquidation, reorganisation, dissolution or other winding up, these assets will be available to pay obligations on the Financing Guarantees only after all other debt secured by these assets has been repaid in full. Any remaining assets will be available to the Issuer, being the Financing Provider under the Intragroup Financing Agreements rateably with all of the Parent's other unsecured and unsubordinated creditors, including trade creditors. If there are not sufficient assets remaining to pay all these creditors, then all or a portion of the Liquidation Preference of the Preference Shares then outstanding would remain unpaid.

The Preference Shares and the Financing Guarantees are unsecured obligations.

The Preference Shares and the Financing Guarantees are unsecured obligations of the Issuer and the Parent, respectively. The repayment of the Preference Shares and payment under the Financing Guarantees may be adversely affected if:

- the Issuer or the Parent enters into bankruptcy, liquidation, reorganisation or other winding-up proceedings;

- there is a default in payment under the Issuer's or the Parent's future secured indebtedness or other unsecured indebtedness; or

- there is an acceleration of any of the Issuer's or the Parent's indebtedness.

If any of these events were to occur, the Issuer's or the Parent's assets may not be sufficient to pay amounts due on the Preference Shares or under the Financing Guarantees, as the case may be.

There is uncertainty with respect to PRC tax laws and certain withholding taxes and value-added tax may be applicable.

Under the Enterprise Income Tax Law ("**EIT Law**", which took effect on 1 January 2008 and was amended on 24 February 2017) and the implementation rules which took effect on 1 January 2018, enterprises established outside the PRC whose "*de facto* management bodies" are located in China are considered "resident enterprises" for PRC tax purposes. The implementation rules define the term "*de facto* management body" as a management body that exercises full and substantial control and management over the business, personnel, accounts and properties of an enterprise. In April 2009, the State Administration of Taxation specified certain criteria for the determination of the "*de facto* management bodies" for foreign enterprises that are controlled by PRC enterprises, which may be relevant for the tax authorities to determine whether the Issuer is a PRC resident enterprise for tax purposes. However, there is no clear standard published by the tax authorities for making such a determination.

The Issuer takes the position that the Issuer is not a PRC resident enterprise for tax purposes. However, there is no assurance that PRC tax authorities will agree with the Group's position. If the Issuer is deemed to be a PRC resident enterprise for EIT purposes, the Issuer would be subject to the PRC enterprise income tax at the rate of 25 per cent. on its worldwide taxable income. Furthermore, the Issuer may be obligated to withhold PRC income tax of up to 10 per cent. on payments of Dividends and other amounts on the Preference Shares to investors that are not resident enterprises in countries with tax treaties between the PRC and those countries which exempt or reduce such withholding tax, because the Dividends and other amounts may be regarded as being derived from sources within the PRC. In addition, if the Issuer fails to do so, it may be subject to fines and other penalties. Similarly, any gain realised by such non-resident enterprise investors from the transfer of the Preference Shares may be regarded as being derived from sources within the PRC and may accordingly be subject to a 10 per cent. PRC withholding tax.

Furthermore, if the Issuer is treated as a PRC resident enterprise, the Dividends the Issuer pays in respect of the Preference Shares, and the gain any investor may realise from the transfer of the Preference Shares, may be treated as income derived from sources within the PRC and may be subject to PRC tax (including withholding tax in the case of Dividend). If the Issuer is required under the EIT Law to withhold PRC income tax from Dividend payments made to the Issuer's foreign shareholders who are "non-resident enterprises", the Issuer will be required to pay such additional amounts as will result in receipt by a holder of the Preference Shares of such amounts as would have been received by the holder had no such withholding been required. The requirement to pay additional amounts will increase the cost of servicing Dividend payments on the Preference Shares, and could have a material adverse effect on its ability to pay Dividends on, and repay the Liquidation Preference of, the Preference Shares, as well as its profitability and cash flow. It is unclear whether, if the Issuer is considered a PRC "resident enterprise", holders of the Preference Shares might be able to claim the benefit of income tax treaties or agreements entered into between China and other countries or areas.

On 23 March 2016, MOF and the State Administration of Taxation issued the Circular of Full Implementation of Replacing Business Tax with Value-Added Tax Reform (*Caishui* [2016] No. 36) ("**Circular 36**"), which introduced a new value-added tax ("**VAT**") from 1 May 2016. VAT is applicable where entities or individuals provide services within the PRC. If the Issuer is treated as a PRC resident enterprise, the Issuer will be obligated to withhold VAT of 6 per cent. and certain surcharges (as described below) on VAT for payments of Dividend and certain other amounts on the Preference Shares paid to Preference Shareholders that are non-resident enterprises or individuals. VAT is unlikely to be applicable to any transfer of Preference Shares between entities or individuals located outside of the PRC and therefore unlikely to be applicable to gains realised upon such transfers of Preference Shares, but there is uncertainty as to the applicability of VAT if either the seller or buyer of Preference Shares is located inside the PRC. Circular 36 together with other laws and regulations pertaining to VAT are relatively new, the interpretation and enforcement of such laws and regulations involve uncertainties. Pursuant to the Interim Regulation of the PRC on City Maintenance and Construction Tax (中華人民共和國城市維護建設税暫行條例(2011修訂)), the Interim Provisions on the Collection of Educational Surcharges (徵收教育費附加的暫行規定(2011修訂)) and the Administrative Measures on the Collection and Utilisation of Local Educational Surcharges in Beijing (北京市地方教育附加徵收適用管理辦法), city maintenance and construction tax, educational surcharges and local educational surcharges will be applicable when entities and individuals are obliged to pay VAT (for an aggregate of 12 per cent. on any VAT payable).

If a Preference Shareholder, being a non-resident enterprise or non-resident individual, is required to pay any PRC income tax on Dividend or gains on the transfer of the Preference Shares, the value of the relevant Preference Shareholder's investment in the Preference Shares may be materially and adversely affected.

If the Parent or any of its subsidiaries, including the Issuer, is unable to comply with the restrictions and covenants in their respective debt agreements (if any), there could be a default under the terms of these agreements, which could cause repayment of the relevant debt to be accelerated.

If the Parent or any of its subsidiaries, including the Issuer, is unable to comply with the restrictions and covenants in their respective current or future debt obligations and other agreements (if any), there could be a default under the terms of these agreements. In the event of a default under these agreements, the holders of the debt could terminate their commitments to lend to the Parent or any of its subsidiaries, including the Issuer, accelerate repayment of the debt, declare all amounts borrowed due and payable or terminate the agreements, as the case may be. Furthermore, those debt agreements contain or may contain cross-acceleration or cross-default provisions. As a result, the default by the Parent or any of its subsidiaries under one debt agreement may cause the acceleration of repayment of debt, or result in a default under its other debt agreements, or result in increases in the Dividend Rate of the Preference Shares. If any of these events occur, there can be no assurance that there would be sufficient assets and cash flows of the Parent or any of its subsidiaries to repay in full all of their respective indebtedness, or that they would be able to find alternative financing. Even if the Parent and its subsidiaries could obtain alternative financing, there can be no assurance that it would be on terms that are favourable or acceptable to the Parent and/or its subsidiaries.

There are restrictions on the voting rights of Holders.

Preference Shareholders shall not be entitled to convene, attend or vote at any Shareholders' meeting, other than when the business of the Shareholders' meeting is to consider any Preference Shareholder Matter Resolution or as otherwise from time to time required by law, in which case the Preference Shareholders will be entitled to attend the Shareholders' meeting and vote only upon such Preference Shareholder Matter Resolution, and the Preference Shareholders will be entitled to one vote in respect of each issued and outstanding Preference Share and vote together with other Preference Shareholders as a separate class from the Ordinary Shareholders.

The ratings assigned to the Preference Shares may be lowered or withdrawn in the future.

The Preference Shares are expected to be assigned a rating of "Baa1" by Moody's. The ratings represent the opinions of the rating agency and its assessment of the ability of the Issuer and the Parent to perform their respective obligations under the Preference Shares and the Financing Guarantees and credit risks in determining the likelihood that payments will be made when due under the Preference Shares. A rating is not a recommendation to buy, sell or hold the Preference Shares and may be subject to revision, suspension or withdrawal at any time. The Group cannot assure investors that a rating will remain for any given period of time or that a rating will not be lowered or withdrawn entirely by the relevant rating agency if in its judgement circumstances in the future so warrant. In addition, credit rating agencies may change their methodology for assigning ratings at any time. None of the Issuer, the Parent, the Trustee or the Agents has any obligation to inform holders of the Preference Shares of any such revision, downgrade or withdrawal. A suspension, reduction or withdrawal at any time of the rating assigned to the Preference Shares may adversely affect the market price of the Preference Shares and the Issuer's or the Parent's ability to access the debt capital markets.

The Preference Shares are perpetual and investors have no right to require redemption.

The Preference Shares are perpetual and have no maturity date. The Issuer is under no obligation to redeem the Preference Shares at any time and the Preference Shares can only be disposed of by sale. The Preference Shares are not redeemable at the option of the Preference Shareholders, and the Preference Shareholders have no right to request the Issuer to redeem the Preference Shares. Preference Shareholders who wish to sell their Preference Shares may be unable to do so at a price at or above the amount they have paid for them, or at all, if insufficient liquidity exists in the market for the Preference Shares.

Preference Shareholders may not receive Dividend payments if the Issuer elects to defer Dividend payments under the Terms and Conditions of the Preference Shares.

The Issuer may, at its sole discretion and subject to certain conditions, elect to defer any scheduled Dividend on the Preference Shares for any period of time. The Issuer is not subject to any limits as to the number of times Dividends and Arrears of Dividend can be or shall be deferred pursuant to the Terms and Conditions of the Preference Shares, subject to compliance with certain restrictions and notwithstanding any increase in the Dividend Rate which may be provided for under the Terms and Conditions of the Preference Shares. Although, following a deferral, Arrears of Dividends are cumulative, subject to the Terms and Conditions of the Preference Shares, the Issuer may defer their payment for an indefinite period of time by delivering the relevant deferral notices to the Preference Shareholders. Any such deferral of Dividend shall not constitute a default for any purpose. Each of the Issuer and the Parent is subject to certain restrictions in relation to the payment of discretionary dividends on its Parity Obligations or Junior Obligations (both terms as defined in the Terms and Conditions of the Preference Shares), the discretionary redemption and repurchase of its Parity Obligations or Junior Obligations until any outstanding Arrears of Dividend and Additional Dividend Amount are satisfied or save in certain specified situations as further described in the Terms and Conditions of the Preference Shares. Such restrictions on discretionary payments act as the main deterrent against deferral of Dividend on the Preference Shares. However, the effectiveness of such restrictions as a deterrent against deferral of Dividends may be limited.

Any deferral of Dividends will likely have an adverse effect on the market price of the Preference Shares. In addition, as a result of the Dividend deferral provision of the Preference Shares, the market price of the Preference Shares may be more volatile than the market prices of other debt securities on which original issue discount or interest accrues that are not subject to such deferrals and may be more sensitive generally to adverse changes in the Group's financial condition.

The Preference Shares may be redeemed at the Issuer's option on the First Call Date or any Call Date thereafter or the occurrence of certain other events.

The Preference Shares are redeemable at the option of the Issuer on the First Call Date and on every Call Date thereafter at the Liquidation Preference of each Preference Share, together with any Dividend (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption.

In addition, the Issuer also has the right to redeem the Preference Shares upon the occurrence of (i) a Gross-up Event, (ii) an Equity Disqualification Event, (iii) a Change of Control Event, (iv) a Breach of Covenants Event or (v) a Relevant Indebtedness Default Event (each term as defined in the Terms and Conditions of the Preference Shares). The Preference Shares may also be redeemed at the option of the Issuer if prior to the date fixed for redemption at least 80 per cent. in aggregate Liquidation Preference of the Preference Shares has already been redeemed. The date on which the Issuer elects to redeem the Preference Shares may not accord with the preference of individual Preference Shareholders. This may be disadvantageous to the Preference Shareholders in light of market conditions or the individual circumstances of the Preference Shareholders. In addition, an investor may not be able to reinvest the redemption proceeds in comparable securities at an effective dividend or distribution rate at the same level as that of the Preference Shares.

There are limited remedies for non-payment under the Preference Shares and the Intragroup Financing Agreements.

Any scheduled Dividend will not be due if the Issuer elects to defer that Dividend pursuant to the Terms and Conditions of the Preference Shares. Notwithstanding any of the provisions relating to non-payment defaults, the right of Preference Shareholders and the Trustee to institute proceedings for winding-up of the Issuer is limited to circumstances where payment in respect of the Preference Shares has become due and remains unpaid. The only remedy against the Issuer available to the Trustee or any Preference Shareholder for recovery of amounts in respect of the Preference Shares following the occurrence of a payment default after any sum becomes due and unpaid in respect of the Preference Shares will be instituting winding-up proceedings of the Issuer and/or proving and/or claiming in winding-up proceedings in respect of the Issuer.

Notwithstanding any of the provisions relating to non-payment defaults in the Intragroup Financing Agreements, the right of the Financing Provider to institute proceedings for winding-up of any Financing Recipient is limited to circumstances where payment in respect of the relevant Financing has become due. In the case of any distribution under the relevant Intragroup Financing Agreement, such distribution will not be due if such Financing Recipient has elected to defer that distribution (including any arrears of distribution or additional distribution amounts) in accordance with the relevant Intragroup Financing Agreement. The only remedy against the Financing Recipients available to the Financing Provider for recovery of amounts in respect of an Intragroup Financing Agreement following the occurrence of a payment default after any sum becomes due and unpaid in respect of such Intragroup Financing Agreement will be instituting winding-up proceedings of the relevant Financing Recipient and/or proving and/or claiming in winding-up proceedings in respect of the any Financing Recipient.

Although the Financing Provider will have rights under the Intragroup Financing Agreements and the Financing Guarantees against the Financing Recipients and the Parent respectively, the Preference Shareholders do not have direct recourse to the Financing Recipients or the Parent under any Financing or the Financing Guarantees. However, upon (i) the Winding-Up of any Financing Recipient or the Parent and/or (ii) any amount under any Financing and/or any Financing Guarantee payable by any Financing

Recipient or the Parent to the Financing Provider not being paid when due or (as the case may be) within any applicable grace period, the Preference Shareholders and the Trustee may through the Financing Provider enforce rights under the Intragroup Financing Agreements and Financing Guarantees on behalf of the Financing Provider to receive payments due to the Financing Provider under the Intragroup Financing Agreements and the Financing Guarantees. Please refer to "*Description of the Intragroup Financing Agreements and the Financing Guarantees*" for further details.

The Preference Shares confer Preference Shareholders with limited rights upon the occurrence of a Change of Control Event, a Breach of Covenants Event or a Relevant Indebtedness Default Event.

The Preference Shares confer Preference Shareholders with limited rights upon the occurrence of a Change of Control Event, a Breach of Covenants Event or a Relevant Indebtedness Default Event. The Issuer may, at any time, on giving irrevocable notice to the Trustee, the Agents and Preference Shareholders, redeem in whole, but not in part, the Preference Shares if any of such events occurs. The Issuer is, however, not obliged to redeem the Preference Shares upon the occurrence of any of such events under the Preference Shares. If the Issuer elects not to redeem the Preference Shares upon the occurrence of such events, the Dividend Rate will increase by a certain percentage per annum pursuant to Condition 4.7 of the Terms and Conditions of the Preference Shares.

The Dividend Rate will be reset on the First Reset Date and each Reset Date, which may affect the market value of the Preference Shares.

The Preference Shares will accrue interest at the Initial Dividend Rate from and including the Issue Date to but excluding the First Reset Date. During the period from and including the First Reset Date and each Reset Date thereafter to but excluding the next Reset Date, the annual Dividend Rate for the Preference Shares will be reset to a rate per annum being the sum of (a) the initial spread of 2.633 per cent. per annum (the "**Dividend Margin**"), (b) the 3-year US Treasury Rate in relation to that Reset Period (as defined in the Terms and Conditions of the Preference Shares) and (c) 3.00 per cent. per annum. The Relevant Reset Dividend Rate could be less than the Initial Dividend Rate and this could have an adverse effect on the market value of the Preference Shares.

The Financing Guarantees given by the Parent needs to be registered with SAFE before they can be considered enforceable under PRC law, and there may be logistical hurdles for cross-border payments under the Financing Guarantees if such registration is not completed within the prescribed timeframe.

The Parent, as a PRC-incorporated company giving guarantees to its foreign incorporated subsidiaries, is required to complete registration (the "**Cross-Border Security Registration**") of the Financing Guarantees with SAFE within the required period after the execution of each Financing Guarantee pursuant to the Provisions on the Foreign Exchange Administration of Cross-Border Guarantees (跨境擔保外匯管理規定) promulgated by SAFE on 12 May 2014 which came into effect on 1 June 2014 (the "**Cross-Border Security Registration Provisions**").

There is no assurance that the Parent will be able to complete the registration of the Financing Guarantees with SAFE within the prescribed timeframe or at all. Although the failure to register does not render the Financing Guarantees ineffective or invalid under PRC law, SAFE may impose penalties on the Parent if the Parent fails to complete the Cross-Border Security Registration. Further, there may be hurdles at the time of remittance of funds (if any cross-border payment is to be made by the Parent under the Financing Guarantees) as domestic banks may require evidence of the Cross-Border Security Registration in connection with the Financing Guarantees in order to effect such remittance. Prior to the performance or discharge of its obligations under the Financing Guarantees, the Parent is also required to complete a verification process with banks for each remittance under the Financing Guarantees.

The interpretation of the Cross-Border Security Registration Provisions may involve significant uncertainty and may adversely affect the practical enforceability of the Financing Guarantees given by the Parent in the PRC. In addition, the administration of the Cross-Border Security Registration Provisions may be subject to a certain degree of executive and policy discretion by SAFE.

The interpretation of the NDRC Notice may involve significant uncertainty, which may adversely affect the enforceability and/or effective performance of the Preference Shares.

According to the NDRC Notice, domestic enterprises and their overseas controlled entities shall procure the registration of any debt securities or medium to long term loans issued or incurred outside the PRC with the NDRC prior to the issue of the debt securities or drawings under the loans, and notify the particulars of the relevant issues or drawings within a prescribed timeframe after the issuance of the securities or the drawings under the loans. The Parent completed the pre-issuance registration with the NDRC on 3 September 2021.

The interpretation of the NDRC Notice may involve significant uncertainty, which may adversely affect the enforceability and/or effective performance of the Preference Shares. The NDRC Notice is silent on the legal consequences of non-compliance with the pre-issue and post-issue registration requirements as mentioned above. In addition, the administration of the NDRC Notice may be subject to a certain degree of executive and policy discretion by the NDRC. There is also a risk that the registration approval with the NDRC may be revoked or amended in the future or that future changes in PRC laws and regulations may have a negative impact on the performance or validity and enforceability of the Preference Shares in the PRC. Potential investors of the Preference Shares are advised to exercise due caution when making their investment decisions.

The insolvency laws of Cayman Islands and the PRC and other local insolvency laws may differ from those of another jurisdiction with which the holders of the Preference Shares are familiar.

As the Issuer and the Parent are incorporated under the laws of Cayman Islands and the PRC, respectively, any insolvency proceeding relating to the Issuer or the Parent would likely involve Cayman Islands or PRC insolvency laws, respectively, the procedural and substantive provisions of which may differ from comparable provisions of the local insolvency laws of jurisdictions with which the holders of the Preference Shares are familiar.

The Trustee may request the Preference Shareholders to provide an indemnity and/or security and/or prefunding to its satisfaction.

In certain circumstances, including, without limitation, instituting proceedings against the Issuer and the Parent and/or taking steps and/or actions pursuant to Condition 9 of the Terms and Conditions of the Preference Shares, the Trustee may, at its sole discretion, request the Preference Shareholders to provide an indemnity and/or security and/or prefunding to its satisfaction before it institutes proceedings and/or takes steps and/or actions on behalf of the Preference Shareholders. The Trustee shall not be obliged to institute such proceedings and/or to take such steps and/or actions if not first indemnified and/or secured and/or prefunded to its satisfaction.

Negotiating and agreeing to an indemnity and/or security and/or prefunding can be a lengthy process and may impact on when such proceedings can be instituted and/or such steps and/or actions can be taken. The Trustee may not be able to instituted proceedings and/or to take steps and/or actions, notwithstanding the provision of an indemnity and/or security and/or prefunding to it, in breach of the terms of the Trust Deed or the Terms and Conditions of the Preference Shares, and in such circumstances, or where there is uncertainty or dispute as to the applicable laws or regulations, to the extent permitted by the agreements and the applicable laws and regulations, it will be for the holders of the Preference Shares to institute such proceedings and/or to take such steps and/or actions directly.

Decisions that may be made on behalf of all holders of the Preference Shares may be adverse to the interests of individual holders of the Preference Shares, and modifications and waivers may be made in respect of the Terms and Conditions of the Preference Shares, the Trust Deed or the Agency Agreement by the Trustee.

The Terms and Conditions of the Preference Shares contain provisions for calling meetings of holders of the Preference Shares to consider Preference Shareholder Matter Resolutions. Passing of the Preference Shareholder Matter Resolution shall require more than two-third of votes held by the Ordinary Shareholders present at the meeting and more than two-third of votes held by the Preference Shareholders present at the meeting. These provisions permit defined majorities to bind all holders of the Preference Shares including holders who did not attend and vote at the meeting and holders who voted in a manner contrary to the majority. Furthermore, there is a risk that the decision of the majority of holders of the Preference Shares may be adverse to the interests of the individual Preference Shareholders.

The Trust Deed provides that the Trustee may (but shall not be obliged to) agree, without the consent of the Preference Shareholders, except for a Preference Shareholder Matter Resolution, to (i) any modification of any of the Conditions or any of the provisions of the Trust Deed or the Agency Agreement that is in its opinion of a formal, minor or technical nature or is made to correct a manifest error or is to comply with any mandatory provision of applicable law, and (ii) any other modification, and any waiver or authorisation of any breach or proposed breach, of any of the Conditions or any of the provisions of the Trust Deed or the Agency Agreement that is in the opinion of the Trustee not materially prejudicial to the interests of the Preference Shareholders. Any such modification, authorisation or waiver shall be binding on the Preference Shareholders and, unless the Trustee otherwise agrees, such modification, authorisation or waiver shall be notified by the Issuer to the Preference Shareholders as soon as practicable.

The Preference Shares will be represented by a Global Certificate and holders of a beneficial interest in the Global Certificate must rely on the procedures of the relevant Clearing System(s).

The Preference Shares will be represented by a Global Certificate which will be deposited with a common depositary for Euroclear and Clearstream (each a "**Clearing System**"). Except in the circumstances described in the Global Certificate, investors will not be entitled to receive definitive Preference Shares. The Clearing System(s) will maintain records of the beneficial interests in the Global Certificate. While the Preference Shares are represented by the Global Certificate, investors will be able to trade their beneficial interests only through the Clearing Systems.

While the Preference Shares are represented by the Global Certificate, the Issuer will discharge its payment obligations under the Preference Shares by making payments to the relevant Clearing System for distribution to their account holders. A holder of a beneficial interest in the Global Certificate must rely on the procedures of the Clearing System(s) to receive payments under the Preference Shares. Neither the Issuer nor the Parent has any responsibility or liability for the records relating to, or payments made in respect of, beneficial interests in the Global Certificate.

Holders of beneficial interests in the Global Certificate will not have a direct right to vote in respect of the Preference Shares. Instead, such holders will be permitted to act only to the extent that they are enabled by the Clearing System(s) to appoint appropriate proxies. Similarly, holders of beneficial interests in the Global Certificate will not have a direct right under the Global Certificate to take enforcement action against the Issuer or the Parent in the event of a default under the Preference Shares represented by the Global Certificate but will have to rely upon their rights under the Trust Deed.

TERMS AND CONDITIONS OF THE PREFERENCE SHARES

The following, subject to modification and other than the words in italics, is the text of the terms and conditions of the Preference Shares which will appear on the reverse of each of the definitive certificates evidencing the Preference Shares.

1 GENERAL

The U.S.$900,000,000 Preference Shares (the "**Preference Shares**") are issued on 9 November 2021 (the "**Issue Date**") pursuant to the memorandum and articles of association of SPIC Preferred Company No.1 Ltd. 國家電投優先股有限公司1號 (the "**Issuer**") (as amended from time to time, the "**Articles of Association**") and were authorised by the sole director of the Issuer on 25 October 2021 and approved by sole shareholder of the Issuer on 26 October 2021. These terms and conditions (these "**Conditions**") include summaries of, and are subject to, the detailed provisions of the Articles of Association.

The Issuer and China Construction Bank (Asia) Corporation Limited (中國建設銀行(亞洲)股份有限公司) (the "**Trustee**", which expression shall, whenever the context so admits, include all persons for the time being the trustee or trustees under the Trust Deed) as trustee for itself and the Preference Shareholders (as defined below) have entered into a trust deed (as amended, restated, replaced and/or supplemented from time to time, the "**Trust Deed**") dated 9 November 2021. An agency agreement (as amended, restated, replaced and/or supplemented from time to time, the "**Agency Agreement**") dated 9 November 2021 has also been entered into in relation to the Preference Shares between the Issuer, the Trustee, China Construction Bank (Asia) Corporation Limited (中國建設銀行(亞洲)股份有限公司) as principal paying agent (the "**Principal Paying Agent**", which expression shall include any successor principal paying agent appointed from time to time in connection with the Preference Shares), transfer agent (the "**Transfer Agent**", which expression shall include any additional or successor transfer agent appointed from time to time in connection with the Preference Shares), registrar (the "**Registrar**", which expression shall include any successor registrar appointed from time to time in connection with the Preference Shares) and calculation agent (the "**Calculation Agent**", which expression shall include any successor calculation agent appointed from time to time in connection with the Preference Shares) and the other agents named in it.

Copies of the Trust Deed, the Agency Agreement and the Articles of Association are available for inspection at all reasonable times during usual business hours (being between 9:00 a.m. (Hong Kong time) and 3:00 p.m. (Hong Kong time), from Monday to Friday (excluding public holidays)) at the principal place of business of the Trustee (being as at the Issue Date at 20/F CCB Tower, 3 Connaught Road Central, Central, Hong Kong) following prior written request and proof of holding and identity of the Preference Shares satisfactory to the Trustee. "**Agents**" means the Principal Paying Agent, the Registrar, the Transfer Agent, the Calculation Agent and any other agent or agents appointed from time to time pursuant to the Agency Agreement with respect to the Preference Shares.

The registered holders of the Preference Shares (the "**Preference Shareholders**" or, in relation to the Preference Shares, the "**Holders**") are entitled to the benefit of, are bound by, and are deemed to have notice of, all the provisions of the Articles of Association, these Conditions and the Trust Deed and are deemed to have notice of those provisions of the Agency Agreement applicable to them.

The Issuer has entered into intragroup senior financing agreements with State Power Investment Corporation Limited (the "**Parent**") and certain subsidiaries of the Parent (each such subsidiary, a "**Financing Recipient**") on or around the Issue Date (each, an "**Intragroup Financing Agreement**"), pursuant to which the Issuer as financing provider (the "**Financing Provider**") will, subject to, and in accordance with, the provisions of the Intragroup Financing Agreements, on-lend the entire gross proceeds from the issue of the Preference Shares to the Financing Recipients (each, a "**Financing**"). The due payment of all sums expressed to be payable by the Financing Recipients to the Financing Provider from time to time under the Intragroup Financing Agreements will be unconditionally and irrevocably guaranteed by the Parent subject to, and in accordance with, the provisions of the deeds of senior guarantee entered into between the Issuer and the Parent on or around the Issue Date in respect of each Financing (each, a "**Financing Guarantee**").

The Parent intends to assist the Issuer in meeting its obligations under the Preference Shares and has entered into a keepwell deed on or around the Issue Date (the "**Keepwell Deed**") with the Issuer and the Trustee, whereby the Parent has provided certain undertakings in respect of the Issuer, the Preference Shares, the Intragroup Financing Agreements and the Financing Guarantees.

The Keepwell Deed does not constitute a direct or indirect guarantee by the Parent of the Issuer's obligations under the Preference Shares and may not give rise to a debt claim in the event of any insolvency proceedings in relation to the Parent.

2 FORM AND TRANSFER

2.1 Form and Title

The Preference Shares will have a par value of U.S.$0.01 each and will be issued as fully paid-up capital in U.S. dollars so that the issuance price of the Preference Shares will be U.S.$1,000 each (the "**Liquidation Preference**"). The Preference Shares will be issued in registered form and issued and transferable only in minimum amounts of U.S.$200,000 (or 200 Preference Shares) and integral multiples of U.S.$1,000 (or 1 Preference Share) in excess thereof (each an "**Authorised Denomination**"). The Preference Shares are represented by registered certificates ("**Certificates**") and each Certificate shall represent the entire holding of Preference Shares by the same Holder.

Title to the Preference Shares will, subject to and in accordance with these Conditions and the Articles of Association, be freely transferable and pass by transfer and registration in a register of Preference Shareholders (the "**Register**") that the Issuer shall procure to be kept and maintained by the Registrar outside the United Kingdom and Hong Kong at all times. Except as ordered by a court of competent jurisdiction or as otherwise required by law, the Holder of any Preference Share will be treated as its absolute owner for all purposes, and no person will be liable for so treating the Holder.

2.2 Transfers of Interests in Preference Shares

Registration of transfer of the Preference Shares will be effected by or on behalf of the Issuer or the Registrar but upon payment (or the giving of such indemnity and/or security and/or pre-funding as the Issuer or the Registrar may require) by the relevant Holder in respect of any taxes or other governmental, regulatory or administrative charges which may be charged in relation to such transfer. Transfers of Preference Shares and entries on the Register will be made in accordance with the Articles of Association.

Transfers of interests in the Preference Shares represented by a Global Certificate will be effected through the records of Euroclear and Clearstream (or any Alternative Clearing System) and their respective participants in accordance with the rules and operating procedures of Euroclear and Clearstream (or any Alternative Clearing System) and their respective participants.

2.3 Closed Periods

No Preference Shareholder may require the transfer of a Preference Share to be registered:

(a) during the period of 30 days prior to a Shareholders' meeting; or

(b) during the period of five days ending on the record date for the determination of entitlement for any distribution of Dividend or the period of five days ending on the due date for the redemption of that Preference Share.

2.4 Global Certificate

The Preference Shares will initially be represented by a global certificate (the "**Global Certificate**") which will be registered in the name of a nominee of, and deposited with, a common depositary for, Euroclear Bank SA/NV ("**Euroclear**") and Clearstream Banking S.A. ("**Clearstream**"). Beneficial interests in the Global Certificate will be shown on, and transfers thereof will be effected only through, the records maintained by Euroclear, Clearstream and any other alternative clearing system selected by the Issuer and approved by the Trustee, the Principal Paying Agent and the Registrar through which interests in the Preference Shares are held (the "**Alternative Clearing System**"). Except in the limited circumstances set out in the Global Certificate, individual Certificates for the Preference Shares will not be issued in exchange for beneficial interest in the Global Certificate. While the Preference Shares are represented by the Global Certificate and the Global Certificate is held on behalf of Euroclear, Clearstream or any Alternative Clearing System, the Preference Shares will be recorded, transferred and/or converted on the basis of their Authorised Denomination and not the number of Preference Shares. The Preference Shares are not issuable in bearer form.

In addition, for so long as the Preference Shares are represented by the Global Certificate and the Global Certificate is held on behalf of Euroclear, Clearstream or any Alternative Clearing System, certain provisions of the Conditions will be modified to reflect the rules, procedures and practices of Euroclear, Clearstream and any Alternative Clearing System as further described in such Global Certificate.

3 STATUS AND SUBORDINATION OF THE PREFERENCE SHARES

3.1 Status of the Preference Shares

The Preference Shares constitute direct, unsecured and subordinated obligations of the Issuer which rank *pari passu* and without any preference or priority of payment among themselves.

The rights and restrictions attaching to the Preference Shares shall be set out in the Articles of Association. In the event of any inconsistencies between these Conditions and the Articles of Association, the provisions of the Articles of Association shall prevail.

3.2 Ranking upon Winding-Up of the Issuer

Upon the Winding-Up of the Issuer, the rights and claims in respect of the Preference Shareholders shall rank:

(a) junior to holders of all general unsubordinated liabilities of the Issuer;

(b) equally in all respects with each other and without preference or priority of payment among themselves and with the holders of all Parity Obligations of the Issuer; and

(c) in priority to the holders of all Junior Obligations of the Issuer.

On such Winding-Up of the Issuer, the Preference Shareholders shall be entitled to an amount in respect of each Preference Share which will be equal to the Liquidation Preference together with any accrued but unpaid Dividends (including any Arrears of Dividend and any Additional Dividend Amounts).

If there are insufficient remaining assets upon such Winding-Up of the Issuer to cover the amounts payable in full on the Preference Shares and all Parity Obligations of the Issuer, the Preference Shareholders and the holders of such Parity Obligations will share rateably in the distribution of such remaining assets (if any) of the Issuer in proportion to the full amounts to which they are respectively entitled.

After payment of the full amounts to which the Preference Shareholders are entitled on a Winding-Up of the Issuer, such Preference Shareholders will have no right or claim to any of the Issuer's remaining assets.

3.3 Set-off

Subject to applicable laws and regulations, no Holder may exercise, claim or plead any right of set-off, counterclaim, deduction, withholding or retention in respect of any amount owed to it by the Issuer in respect of, or arising under or in connection with the Preference Shares, and each Holder shall, by virtue of being a Holder of the Preference Shares, be deemed to have waived all such rights of set-off, counterclaim, deduction, withholding or retention against the Issuer. Notwithstanding the preceding sentence, if any of the amounts owing to any Holder by the Issuer in respect of, or arising under or in connection with the Preference Shares is discharged by set-off, counterclaim, deduction, withholding or retention, such Holder shall, subject to applicable law, immediately pay an amount equal to the amount of such discharge to the Issuer (or, in the event of its liquidation, the liquidator of the Issuer) and, until such time as payment is made, shall hold such amount in trust for the Issuer (or the liquidator of the Issuer) and accordingly any such discharge shall be deemed not to have taken place.

4 DIVIDENDS

Subject as provided in this Condition 4, each Preference Share will accrue dividends and/or distributions (the "**Dividends**") on its Liquidation Preference from and including the Issue Date and shall entitle the Holder thereof to receive Dividends which are due but unpaid.

4.1 Dividend Rate

Subject to any increase pursuant to Condition 4.7, the rate of Dividend (the "**Dividend Rate**") applicable to the Preference Shares shall be:

(a) from, and including the Issue Date, to, but excluding, 9 November 2024 (the "**First Reset Date**"), 3.38 per cent. per annum (the "**Initial Dividend Rate**"); and

(b) (i) from, and including the First Reset Date, to, but excluding, the Reset Date falling immediately after the First Reset Date, and (ii) from, and including, each Reset Date thereafter to, but excluding, the immediately following Reset Date, the Relevant Reset Dividend Rate.

4.2 Dividend Payment Date

Subject as provided in this Condition 4, each Dividend will be payable, semi-annually in arrear in equal instalments on 9 May and 9 November in each year (each, a "**Dividend Payment Date**"). The period beginning on and including the Issue Date and ending on but excluding the next succeeding Dividend Payment Date and each successive period beginning on and including a Dividend Payment Date and ending on but excluding the next succeeding Dividend Payment Date is called a "**Dividend Period**".

Subject as provided in this Condition 4, the amount of Dividend payable per Liquidation Preference on each Dividend Payment Date in respect of the period from, and including the Issue Date, to, but excluding the First Reset Date shall be U.S.$16.90.

4.3 Calculation of Dividend Amount

When Dividends are required to be calculated in respect of a period that is not a full Dividend Period, the Dividends payable for such period for each Preference Share shall be equal to the product of the applicable Dividend Rate, the Liquidation Preference of such Preference Share and the relevant day-count fraction, rounding the resulting figure to the nearest U.S. cent (half a U.S. cent being rounded upwards). For the purposes of these Conditions, the relevant day-count fraction means (i) the number of days in the relevant period divided by (ii) 360 (with the number of days to be calculated on the basis of a year of 360 days with 12 months of 30 days each, and in the case of an incomplete month, the number of days elapsed).

So long as the Preference Shares are represented by a Global Certificate which is held on behalf of Euroclear, Clearstream or any Alternative Clearing System, the Dividend in respect of the Preference Shares shall be calculated based on the aggregate Liquidation Preference of the Preference Shares represented by the Global Certificate.

4.4 Conditions to Distribution of Dividends

Notwithstanding any other provision in this Condition 4, the payment of any Dividend (including any Arrears of Dividend and any Additional Dividend Amounts) on any Dividend Payment Date shall be made pursuant to the Articles of Association and applicable laws and regulations of the Cayman Islands, including the Issuer having sufficient distributable reserves out of the funds of the Issuer lawfully available to pay such Dividend (including any Arrears of Dividend and any Additional Dividend Amount). The Preference Shareholders and the Trustee shall be entitled to rely conclusively as to such compliance by the Issuer with its Articles of Association and applicable laws and regulations in respect of the payment of any Dividend, without liability or further investigation.

Following payment by the Issuer of the applicable Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) at the applicable Dividend Rate on such Dividend Payment Date as set forth in this Condition 4, the Preference Shareholders shall not be entitled to receive any additional distribution of residual profits of the Issuer together with the Ordinary Shareholders.

4.5 Dividend Accrual of Preference Shares

Each Preference Share will cease to accrue Dividends from the due date for redemption unless, upon due presentation of the Certificate representing such Preference Share, payment of the full amount due in respect of such Preference Share is improperly withheld or refused. In such event, the Dividend on such Preference Share shall, subject as provided in this Condition 4, continue to accrue, at the then applicable Dividend Rate, up to but excluding whichever is the earlier of (a) the date on which all sums due in respect of any Preference Share are received by or on behalf of the relevant Preference Shareholder; and (b) the day which is seven days after the Principal Paying Agent or the Trustee has notified the Preference Shareholders that it has received all sums due in respect of the Preference Shares up to such seventh day (except to the extent that there is a failure in the subsequent payment to the relevant Preference Shareholders under these Conditions). The Preference Shares shall be treated as having been redeemed only after all amounts payable on redemption of the Preference Shares have been paid in full.

4.6 Dividend Deferral of Preference Shares

(i) Optional and Compulsory Deferral

The Issuer (a) may, at its sole discretion, elect to defer (in whole or in part) unless a Compulsory Dividend Payment Event has occurred (an "**Optional Deferral Event**") and (b) in the case where any condition set out in Condition 4.4 is not satisfied in respect of any relevant Dividend Period, shall compulsorily defer in whole, any Dividend which is otherwise scheduled to be paid on a Dividend Payment Date to the next Dividend Payment Date by giving notice substantially in the form set out in the Trust Deed (a "**Deferral Notice**") to the Preference Shareholders (in accordance with Condition 12) and the Trustee and Principal Paying Agent in writing not more than 15 Payment Business Days nor less than five Payment Business Days prior to a scheduled Dividend Payment Date.

The Issuer undertakes that prior to any relevant Dividend Payment Date, the Issuer will not take any action that will constitute a Compulsory Dividend Payment Event unless such action will not result in a compulsory deferral under Condition 4.6(i) by the time of such relevant Dividend Payment Date.

Any partial payment of any Dividend (including any Arrears of Dividend and any Additional Dividend Amounts) by the Issuer shall be shared by the Holders of all issued and outstanding Preference Shares on a *pro rata* basis.

(ii) No obligation to pay

The Issuer shall have no obligation to pay any Dividend (including any Arrears of Dividend and any Additional Dividend Amount) on any Dividend Payment Date if it validly elects to defer or compulsorily defers such Dividend in accordance with Condition 4.6(i). Such deferral in accordance with these Conditions will not constitute a default for any purpose by the Issuer.

(iii) Requirements as to Notice

In the case of an Optional Deferral Event, together with a Deferral Notice, the Issuer shall deliver to the Preference Shareholders, the Trustee and the Principal Paying Agent a certificate substantially in the form set out in the Trust Deed, signed by any Authorised Signatory of the Issuer confirming that no Compulsory Dividend Payment Event has occurred. Each of the Preference Shareholders, the Trustee and the Principal Paying Agent shall be entitled to accept and rely upon such certificate without investigation or verification as sufficient evidence of the occurrence of an Optional Deferral Event and such certificate shall be conclusive and binding on the Preference Shareholders, the Trustee and the Principal Paying Agent.

(iv) Cumulative Deferral

Any Dividend deferred pursuant to this Condition 4.6 shall constitute "**Arrears of Dividend**". The Issuer may at its sole discretion elect to defer further (in whole or in part), or shall compulsorily defer in whole, in each case in the circumstances set out in Condition 4.6(i), any Arrears of Dividend by complying with the foregoing notice requirement applicable to any deferral of an accrued Dividend. The Issuer is not subject to any limit as to the number of times Dividends and Arrears of Dividends can or shall be deferred pursuant to this Condition 4.6 except that Condition 4.6(v) shall be complied with until all outstanding Arrears of Dividend and Additional Dividend Amount have been paid in full.

Each amount of Arrears of Dividend shall accrue Dividends as if it constituted the Liquidation Preference of the Preference Shares at the prevailing Dividend Rate and the amount of such Dividends (the "**Additional Dividend Amount**") with respect to Arrears of Dividends shall be due and payable pursuant to this Condition 4.6 and shall be calculated by applying the applicable Dividend Rate to the amount of the Arrears of Dividend and otherwise *mutatis mutandis* as provided in the foregoing provisions of this Condition 4. The Additional Dividend Amount accrued up to any Dividend Payment Date shall be added (for the purpose of calculating the Additional Dividend Amount accruing thereafter) to the amount of Arrears of Dividend remaining unpaid on such Dividend Payment Date so that it will itself become Arrears of Dividend.

(v) Restrictions in the case of Deferral

If, on any Dividend Payment Date, payment of Dividends scheduled to be made on such date is not made in full, the Issuer shall not:

(a) declare or pay any discretionary dividends or discretionary distributions or make any other discretionary payment, and will procure that no such discretionary dividend, discretionary distributions or other discretionary payment is made, on any Parity Obligations or Junior Obligations of the Issuer; or

(b) at its discretion redeem, reduce, cancel, buy back or otherwise acquire for any consideration any Parity Obligations or Junior Obligations of the Issuer prior to its stated maturity,

in each case, unless and until the Issuer has satisfied in full all outstanding Arrears of Dividends and Additional Dividend Amounts.

If, on any Dividend Payment Date, payment of Dividends scheduled to be made on such date is not made in full, the Parent shall not:

(a) declare or pay any discretionary dividends or discretionary distributions or make any other discretionary payment, and will procure that no such discretionary dividend, discretionary distributions or other discretionary payment is made, on any Parity Obligations or Junior Obligations of the Parent (except (I) in relation to Parity Obligations of the Parent, on a *pro rata basis*, or (II) in connection with any employee benefit plan or similar arrangements with or for the benefit of employees, officers, directors or consultants of the Parent); or

(b) at its discretion redeem, reduce, cancel, buy back or otherwise acquire for any consideration any Parity Obligations or Junior Obligations of the Parent prior to its stated maturity (except (I) in relation to Parity Obligations of the Parent, on a *pro rata* basis, (II) in connection with any employee benefit plan or similar arrangements with or for the benefit of employees, officers, directors or consultants of the Parent or (III) as a result of the exchange or conversion of its Parity Obligations for its Junior Obligations),

in each case, unless and until the Issuer has satisfied in full all outstanding Arrears of Dividends and Additional Dividend Amounts.

For the avoidance of doubt, Condition 4.6(v) does not restrict the Parent from paying any amounts under the Financing Guarantees.

(vi) Satisfaction of Arrears of Dividend by payment

The Issuer:

(a) may satisfy any Arrears of Dividend and Additional Dividend Amounts (in whole or in part) at any time by giving notice of such election to the Preference Shareholders (in accordance with Condition 12), and to the Trustee and the Principal Paying Agent in writing not more than 15 Payment Business Days nor less than five Payment Business Days prior to the relevant payment date specified in such notice (which notice is irrevocable and shall oblige the Issuer to pay the relevant Arrears of Dividend and all Additional Dividend Amounts, on the payment date specified in such notice); and

(b) in any event shall satisfy any outstanding Arrears of Dividend and Additional Dividend Amount (in whole and not in part) on the earliest of:

(A) the date of redemption of the Preference Shares in accordance with the redemption events set out in Condition 6;

(B) the next Dividend Payment Date following the occurrence of a breach of Condition 4.6(v) or the occurrence of a Compulsory Dividend Payment Event; and

(C) a Winding-Up of the Issuer or the Parent.

(vii) No default

Notwithstanding any other provision in these Conditions, the Trust Deed or in the Articles of Association, the deferral of any Dividend payment in accordance with this Condition 4.6 shall not constitute a default for any purpose (including, without limitation, pursuant to Condition 9) on the part of the Issuer under the Preference Shares or for any other purpose.

4.7 Increase or Decrease in Dividend Rate following occurrence of certain events

(i) Increase in Dividend Rate

Upon the occurrence of:

(a) a Change of Control Event;

(b) a Breach of Covenants Event; or

(c) a Relevant Indebtedness Default Event (each a "**Step-up Event**"),

unless (I) an irrevocable notice to redeem the Preference Shares has been given to Preference Shareholders by the Issuer pursuant to Condition 6 by the 30th day following the occurrence of the relevant Step-up Event or (II) in the case of a Step-up Event other than a Change of Control Event, such Step-up Event is remedied by the 30th day following the occurrence of such Step-up Event, the Dividend Rate will increase by the Step-up Rate with effect from (x) the next Dividend Payment Date or (y) if the date on which the relevant Step-up Event occurs is prior to the most recent preceding Dividend Payment Date, such Dividend Payment Date provided that the maximum aggregate increase in the applicable Dividend Rate pursuant to this Condition 4.7 shall not exceed the Step-up Rate and the Dividend Rate in any case shall not exceed the Maximum Dividend Rate. For the avoidance of doubt, any increase in the Dividend Rate pursuant to this Condition 4.7 is separate from and in addition to any increase in the Dividend Rate pursuant to Condition 4.1.

Any increase in the Dividend Rate pursuant to this Condition 4.7 shall be notified by the Issuer to the Preference Shareholders (in accordance with Condition 12) and to the Trustee and the Principal Paying Agent in writing no later than, as the case may be, (aa) the 60th day following the occurrence of the Change of Control Event, (bb) the 30th day following the occurrence of a Breach of Covenants Event, or (cc) the 30th day following the occurrence of a Relevant Indebtedness Default Event.

(ii) Decrease in Dividend Rate

If following an increase in the Dividend Rate after a Step-up Event pursuant to Condition 4.7(i):

(A) in the case of a Step-up Event other than a Change of Control Event, such Step-up Event is cured; or

(B) in the case of a Change of Control Event, the circumstance specified in the definition of "Change of Control Event" ceases to continue,

upon notice of such facts being given to the Preference Shareholders (in accordance with Condition 12) and to the Trustee and the Principal Paying Agent in writing, the Dividend Rate shall be decreased by the Step-up Rate with effect from (and including) the Dividend Payment Date immediately following the date falling 30 days after the date on which the Trustee receives evidence to its satisfaction (acting on the instructions of Holders of at least 25.0 per cent. in aggregate Liquidation Preference of the issued and outstanding Preference Shares) of the cure or ceasing to continue of such Step-up Event, provided that the maximum aggregate decrease in the Dividend Rate pursuant to this Condition 4.7 shall not exceed the Step-up Rate.

4.8 Determination and notification of Relevant Reset Dividend Rate

The Calculation Agent will cause the applicable Relevant Reset Dividend Rate determined by it to be notified as soon as reasonably practicable to the Issuer, the Preference Shareholders, the Trustee and the Principal Paying Agent, and in any event no later than the fourth Calculation Business Day after such determination by the Calculation Agent. All notifications, opinions, determinations, certificates, calculations, quotations and decisions given, expressed, made or obtained for the purposes of this Condition 4.8 by the Calculation Agent will (in the absence of manifest error) be binding on the Issuer, the Principal Paying Agent, the Trustee and the Preference Shareholders and no liability to any such person will attach to the Calculation Agent in connection with the exercise or non-exercise by it of its powers, duties and discretions for such purposes unless caused directly by the fraud, gross negligence or wilful default of the Calculation Agent.

5 PAYMENTS

5.1 Method of Payment

(i) Payments of Dividend (including any Arrears of Dividend and any Additional Dividend Amounts) or Liquidation Preference in respect of the Preference Shares shall be made (subject to the surrender of the relevant Certificate at the specified office of any Transfer Agent or of the Registrar if no further payment falls to be made in respect of the Preference Shares represented by such Certificate) in the manner provided in this Condition 5.1(ii).

(ii) Payments of Dividend (including any Arrears of Dividend and any Additional Dividend Amounts) or Liquidation Preference in respect of the Preference Shares will be paid to the Preference Shareholders shown on the Register at the close of business on the fifth Payment Business Day before the due date for such payment (the "**Record Date**"). Payments of any amounts on each Preference Share will be made by bank transfer to a U.S. dollar account maintained by the Holder with a bank, details of which appear on the Register at the close of business on the Record Date.

(iii) Payment instructions (for value on the due date, or if that is not a Payment Business Day, for value on the first following day which is a Payment Business Day) will be initiated on the due date for payment (or, if it is not a Payment Business Day, the immediately following Payment Business Day) or, in the case of payments where the relevant Certificate has not been surrendered at the specified office of the relevant Transfer Agent or of the Registrar as required by these Conditions, on a Payment Business Day on which such office is open for business and on which the relevant Certificate is surrendered.

*For so long as the Preference Shares are represented by a Global Certificate, all payments in respect of the Preference Shares will be (i) made to, or to the order of, the person whose name is entered on the Register at the close of business on the record date, which shall be on the Clearing System Business Day immediately prior to the date for payment, where "**Clearing System Business Day**" means a weekday (Monday to Friday, inclusive) except 25 December and 1 January and (ii) effected in accordance with the rules and procedures of the relevant clearing system.*

5.2 Delay in Payment

The Preference Shareholders shall not be entitled to any Dividend or other payment for any delay after the due date in receiving the amount due on a Preference Share if the due date is not a Payment Business Day or if the Holder is late in presenting or surrendering its Certificate (if required to do so).

5.3 Payments Subject to Applicable Laws

All payments on the Preference Shares are subject in all cases to (i) any applicable fiscal or other laws, regulations and directives in the place of payment, but without prejudice to the provisions of Condition 7, and (ii) any withholding or deduction required pursuant to an agreement described in Section 1471(b) of the U.S. Internal Revenue Code of 1986, as amended (the "**U.S. Internal Revenue Code**") or otherwise imposed pursuant to Sections 1471 through 1474 of the U.S. Internal Revenue Code, any regulations or agreements thereunder, any official interpretations thereof, or (without prejudice to the provisions of Condition 7) any law implementing an intergovernmental approach thereto. No commission or expenses shall be charged to the Preference Shareholders in respect of such payments.

6 REDEMPTION

6.1 No Maturity Date

The Preference Shares are perpetual and have no maturity date. The Issuer will only have the right to redeem the Preference Shares as described in this Condition 6.

The Preference Shares are not redeemable at the option of the Preference Shareholders, and no Preference Shareholder may request the Issuer to redeem any Preference Shares or request the Issuer to buy back any Preference Shares held by it.

6.2 Redemption at the option of the Issuer

On the First Call Date or on any Dividend Payment Date after the First Call Date (each, a "**Call Date**"), the Issuer may, upon giving not less than 30 nor more than 60 days' notice to the Preference Shareholders in accordance with Condition 12, and the Trustee and the Principal Paying Agent in writing, redeem in whole or in part the issued and outstanding Preference Shares at the Liquidation Preference of each Preference Share, together with any Dividend (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption. Such redemption shall be made pursuant to the Articles of Association and applicable laws and regulations of the Cayman Islands, including the Issuer having sufficient distributable reserves out of the funds of the Issuer lawfully available to pay any Dividend (including any Arrears of Dividend and any Additional Dividend Amount).

On the expiry of any such redemption notice as is referred to in this Condition 6.2, the Issuer shall be bound to redeem the Preference Shares on the relevant Call Date in accordance with Condition 6.2.

6.3 Redemption for Taxation Reasons

The Issuer may, upon giving not less than 30 nor more than 60 days' notice (a "**Tax Redemption Notice**") to the Preference Shareholders in accordance with Condition 12, and the Trustee and the Principal Paying Agent in writing, redeem in whole, but not in part, the Preference Shares on the date specified in the Tax Redemption Notice for redemption (the "**Tax Redemption Date**") at the Liquidation Preference of each Preference Share plus any Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the Tax Redemption Date, if the Issuer satisfies the Trustee immediately prior to the giving of such Tax Redemption Notice that (i) the Issuer has or will become obliged to pay Additional Tax Amounts as provided or referred to in Condition 7 as a result of any change in, or amendment to, the laws or regulations of the Cayman Islands or the PRC or, in any such case, any political subdivision or any authority thereof or therein having power to tax, or any change in the application or official interpretation of such laws or regulations, which change or amendment becomes effective on or after 2 November 2021, and (ii) such obligation cannot be avoided by the Issuer taking reasonable measures available to it (a "**Gross-Up Event**"), provided that no Tax Redemption Notice shall be given earlier than 90 days prior to the earliest date on which the Issuer would be obliged to pay such Additional Tax Amounts were a payment in respect of the Preference Shares then due. Such redemption shall be made pursuant to the Articles of Association and applicable laws and regulations of the Cayman Islands, including the Issuer having sufficient distributable reserves out of the funds of the Issuer lawfully available to pay any Dividend (including any Arrears of Dividend and any Additional Dividend Amount).

Prior to the publication of any Tax Redemption Notice pursuant to this Condition 6.3, the Issuer shall deliver to the Trustee (a) a certificate signed by an Authorised Signatory of the Issuer stating that the obligation referred to in (i) above of this Condition 6.3 cannot be avoided by the Issuer taking reasonable measures available to it and (b) an opinion of independent legal or tax advisers of recognised standing to the effect that the Issuer has or will become obliged to pay such Additional Tax Amounts as a result of such change in or amendment to laws or regulations or change in the application or official interpretation thereof, and the Trustee shall be entitled to accept such certificate and opinion as sufficient evidence of the satisfaction of the conditions precedent set out above in (i) and (ii) of this Condition 6.3, in which event the same shall be conclusive and binding on the Preference Shareholders. The Trustee shall be protected and shall have no liability to any Preference Shareholder or any other person for so accepting and relying on any such certificate and opinion.

On the Tax Redemption Date, the Issuer shall redeem the Preference Shares in accordance with this Condition 6.3.

6.4 Redemption for Accounting Reasons

The Issuer may at any time, upon giving not less than 30 nor more than 60 days' notice to the Preference Shareholders in accordance with Condition 12, and the Trustee and the Principal Paying Agent in writing, redeem in whole, but not in part, the Preference Shares at the Liquidation Preference of each Preference Share, together with any Dividend (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption if, immediately before giving such notice, the Issuer satisfies the Trustee that as a result of any changes or amendments to, or a change or amendment to any interpretation of:

(a) PRC GAAP or any other generally accepted accounting standards that may be adopted by the Issuer for the purposes of preparing its consolidated financial statements (the "**Issuer Accounting Standards**");

(b) PRC GAAP or any other generally accepted accounting standards that may be adopted by SPIC International Finance (Hong Kong) Company Limited ("**SPIC International Finance Hong Kong**") for the purposes of preparing its consolidated financial statements (the "**Issuer Parent Accounting Standards**"); or

(c) PRC GAAP or any other generally accepted accounting standards that may be adopted by the Parent for the purposes of preparing its consolidated financial statements (the "**Parent Accounting Standards**" and each of the Parent Accounting Standards, the Issuer Accounting Standards and the Issuer Parent Accounting Standards is referred to as a "**Relevant Accounting Standard**"),

the Preference Shares must not or must no longer be recorded as "**equity**" of the Issuer, SPIC International Finance Hong Kong or the Parent pursuant to the applicable Relevant Accounting Standard (each, an "**Equity Disqualification Event**"). Such redemption shall be made pursuant to the Articles of Association and applicable laws and regulations of the Cayman Islands, including the Issuer having sufficient distributable reserves out of the funds of the Issuer lawfully available to pay any Dividend (including any Arrears of Dividend and any Additional Dividend Amount).

Prior to the giving of any notice of redemption pursuant to this Condition 6.4, the Issuer shall deliver or procure that there is delivered to the Trustee:

(A) a certificate in English, signed by an Authorised Signatory of the Issuer, stating that the Issuer is entitled to effect such redemption and setting forth a statement of facts showing that an Equity Disqualification Event has occurred; and

(B) an opinion, in form and substance satisfactory to the Trustee, of the independent auditors of the Issuer, SPIC International Finance Hong Kong or the Parent, as the case may be, stating that the circumstances referred to above prevail and the date on which the relevant change or amendment to, or the relevant change or amendment to the relevant interpretation of, the applicable Relevant Accounting Standard, as the case may be, is due to take effect,

provided, however that no notice of redemption may be given under this Condition 6.4 earlier than 90 days prior to the date on which the relevant change or amendment to, or the relevant change or amendment to the relevant interpretation of, the applicable Relevant Accounting Standard, as the case may be, is due to take effect in relation to the Issuer, SPIC International Finance Hong Kong or the Parent, as the case may be.

The Trustee shall be entitled to accept such certificate and opinion as sufficient evidence of the satisfaction of the conditions precedent set out in (A) and (B) of this Condition 6.4, in which event the same shall be conclusive and binding on the Preference Shareholders. The Trustee shall be protected and shall have no liability to any Preference Shareholder or any other person for so accepting and relying on any such certificate and opinion.

Upon the expiry of any such notice as is referred to in this Condition 6.4, the Issuer shall be bound to redeem the Preference Shares in accordance with this Condition 6.4.

6.5 Redemption for a Change of Control Event

The Issuer may at any time, upon giving not less than 30 nor more than 60 days' notice to the Preference Shareholders in accordance with Condition 12, and the Trustee and the Principal Paying Agent in writing, redeem in whole, but not in part, the Preference Shares at:

(i) 101 per cent. of the Liquidation Preference of each Preference Share plus any Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption, at any time before the First Call Date; or

(ii) the Liquidation Preference of each Preference Share plus any Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption, at any time on or after the First Call Date,

if a Change of Control Event occurs.

Such redemption shall be made pursuant to the Articles of Association and applicable laws and regulations of the Cayman Islands, including the Issuer having sufficient distributable reserves out of the funds of the Issuer lawfully available to pay any Dividend (including any Arrears of Dividend and any Additional Dividend Amount).

Prior to the giving of any notice of redemption pursuant to this Condition 6.5, the Issuer shall deliver or procure that there is delivered to the Trustee a certificate in English, signed by an Authorised Signatory of the Issuer, stating that the circumstances referred to above in this Condition 6.5 prevail and setting out the details of such circumstances.

The Trustee shall be entitled to accept such certificate as sufficient evidence of the satisfaction of the circumstances set out above, in which event it shall be conclusive and binding on the Preference Shareholders. The Trustee shall be protected and shall have no liability to any Preference Shareholder or any other person for so accepting and relying on any such certificate and opinion.

Upon the expiry of any such notice as is referred to in this Condition 6.5, the Issuer shall be bound to redeem the Preference Shares in accordance with this Condition 6.5.

6.6 Redemption on the occurrence of a Breach of Covenants Event

The Issuer may at any time, upon giving not less than 30 nor more than 60 days' notice to the Preference Shareholders in accordance with Condition 12, and the Trustee and the Principal Paying Agent in writing, redeem in whole or in part the Preference Shares at the Liquidation Preference of each Preference Share plus any Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption upon the occurrence of a Breach of Covenants Event. Such redemption shall be made pursuant to the Articles of Association and applicable laws and regulations of the Cayman Islands, including the Issuer having sufficient distributable reserves out of the funds of the Issuer lawfully available to pay any Dividend (including any Arrears of Dividend and any Additional Dividend Amount).

Upon the expiry of any such notice as is referred to in this Condition 6.6, the Issuer shall be bound to redeem the Preference Shares in accordance with this Condition 6.6.

6.7 Redemption on the occurrence of a Relevant Indebtedness Default Event

The Issuer may at any time, upon giving not less than 30 nor more than 60 days' notice to the Preference Shareholders in accordance with Condition 12, and the Trustee and the Principal Paying Agent in writing, redeem in whole or in part the Preference Shares at the Liquidation Preference of each Preference Share plus any Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption upon the occurrence of a Relevant Indebtedness Default Event. Such redemption shall be made pursuant to the Articles of Association and applicable laws and regulations of the Cayman Islands, including the Issuer having sufficient distributable reserves out of the funds of the Issuer lawfully available to pay any Dividend (including any Arrears of Dividend and any Additional Dividend Amount).

Upon the expiry of any such notice as is referred to in this Condition 6.7, the Issuer shall be bound to redeem the Preference Shares in accordance with this Condition 6.7.

6.8 Redemption for minimum outstanding amount

The Issuer may at any time, upon giving not less than 30 nor more than 60 days' notice to the Preference Shareholders in accordance with Condition 12, and the Trustee and the Principal Paying Agent in writing, redeem in whole or in part the Preference Shares at the Liquidation Preference of each Preference Share plus any Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) accrued but unpaid to but excluding the date fixed for redemption if prior to the date fixed for redemption at least 80 per cent. in aggregate Liquidation Preference of the Preference Shares has already been redeemed. Such redemption shall be made pursuant to the Articles of Association and applicable laws and regulations of the Cayman Islands, including the Issuer having sufficient distributable reserves out of the funds of the Issuer lawfully available to pay any Dividend (including any Arrears of Dividend and any Additional Dividend Amount).

Upon the expiry of any such notice as is referred to in this Condition 6.8, the Issuer shall be bound to redeem the Preference Shares in accordance with this Condition 6.8.

6.9 No other redemption

The Issuer shall not be entitled to redeem the Preference Shares and the Issuer shall not have any obligation to make any payment of the Liquidation Preference in respect of the Preference Shares otherwise than as provided in these Conditions.

6.10 Purchase

Any purchase of Preference Shares by the Issuer, the Parent, the Financing Recipients or their respective Subsidiaries shall be subject to applicable laws and regulations and made at any price in the open market or otherwise. The Preference Shares so purchased, while held by or on behalf of the Issuer, the Parent, the Financing Recipients or any such Subsidiary, shall not entitle the Holder to vote at any meetings of the Shareholders and shall not be deemed to be outstanding for, among other things, the purposes of calculating quorums at meetings of the Shareholders or for the purposes of Conditions 9 and 11.

Subject to applicable laws and regulations, all Certificates representing Preference Shares purchased by or on behalf of the Issuer, the Parent, the Financing Recipients or any of their respective Subsidiaries may be held, reissued, resold or surrendered for cancellation to the Registrar and, upon surrender thereof, all such Preference Shares shall be cancelled forthwith. Any Certificates so surrendered for cancellation may not be reissued or resold and the obligations of the Issuer in respect of any such Preference Shares shall be discharged immediately upon cancellation of the relevant Certificates.

6.11 Cancellation

Upon surrender, in accordance with the relevant redemption notice as referred to in this Condition 6, of the Certificates for any Preference Shares so redeemed, such Preference Shares shall be redeemed by the Company at the relevant redemption price and thereafter cancelled in accordance with relevant law.

7 TAXATION

All payments of Dividends, Liquidation Preference and/or any other amounts in respect of the Preference Shares (including any Arrears of Dividend or any Additional Dividend Amounts) shall be made free and clear of, and without withholding or deduction for or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or within the Cayman Islands or the PRC or, in any such case, any political subdivision or any authority thereof or therein having power to tax, unless such withholding or deduction is required by the law of the Cayman Islands or the PRC. In that event, the Issuer shall pay such additional amounts (the "**Additional Tax Amounts**") as will result in the receipt by the Preference Shareholders of such amounts as would have been received by them if no such withholding or deduction had been required, provided, however, that no such Additional Tax Amounts shall be payable in respect of any Preference Shares:

(a) to a Preference Shareholder who is liable to such taxes, duties, assessments or governmental charges in respect of such Preference Share by reason of its having some connection with the Cayman Islands or the PRC other than the mere holding of such Preference Share or where the withholding or deduction could be avoided by the Preference Shareholder making a declaration of non-residence or other similar claim for exemption to the appropriate authority; or

(b) in respect of which the Certificate representing it is surrendered for payment more than 30 days after the Relevant Date, except to the extent that the Preference Shareholder would have been entitled to such Additional Tax Amounts if it had surrendered such Certificate on the last day of such period of 30 days (as if such last day were a Payment Business Day).

For the avoidance of doubt, the Issuer's obligation to pay any Additional Tax Amounts will not apply to (a) any estate, inheritance, gift, sales, transfer, personal property or any similar tax, duty, assessment or other governmental charge or (b) any tax, duty, assessment or other governmental charge that is payable otherwise than by deduction or withholding from payments of Dividend on (including any Arrears of Dividend and any Additional Dividend Amounts) or Liquidation Preference of the Preference Shares; *provided that* the Issuer shall pay all stamp or other taxes, duties, assessments or other governmental charges, if any, that may be imposed by the Cayman Islands or the PRC or any political subdivision thereof or any taxing authority thereof or therein as a consequence of the issuance of the Preference Shares.

Any reference to Dividend or Liquidation Preference with respect to the Preference Shares will be deemed to include any Arrears of Dividend and any Additional Tax Amounts payable by the Issuer in respect of such Dividend or Liquidation Preference as described above in this Condition 7.

Neither the Trustee nor any Agent shall be responsible for paying any tax, duty, charges, assessments, governmental charges, withholding or other payment referred to in this Condition 7 or otherwise in connection with the Preference Shares or for determining whether such amounts are payable or the amount thereof, and none of them shall be responsible or liable for any failure by the Issuer, any Holder or any third party to pay such tax, duty, charges, assessments, governmental charges, withholding or other payment in any jurisdiction or be responsible to provide any notice or information in relation to the Preference Shares in connection with payment of such tax, duty, charges, assessments, governmental charges, withholding or other payment imposed by or in any jurisdiction, including without limitation any notice or information that would permit, enable or facilitate the payment of any principal, premium (if any), interest or other amount under or in respect of the Preference Shares without deduction or withholding for or on account of any tax, duty, charges, assessments, governmental charges, withholding or other payment imposed by or in any jurisdiction.

8 UNDERTAKINGS

8.1 Undertakings relating to the Issuer

For so long as any Preference Share remains outstanding, the Issuer hereby undertakes to the Preference Shareholders and the Trustee that it shall:

(i) not carry on any business activity and not incur or have outstanding any Indebtedness, other than (a) borrowing activities and activities in connection with the issue of the Preference Shares or the entering into the Intragroup Financing Agreements and the Financing Guarantees and any other activities reasonably incidental thereto; and (b) the entry into any shareholders' loan that ranks or is expressed to rank, by their terms or by operation of law, in right of payment behind the claims of the Preference Shareholders;

(ii) not create and issue further preference shares ranking as regards participation in the profits and assets of the Issuer equally in all respects with or senior to the Preference Shares; and

(iii) ensure that all liabilities owed by the Issuer to the Parent and/or other Subsidiaries of the Parent rank or are expressed to rank, by their terms or by operation of law, in right of payment behind the claims of the Preference Shareholders.

Each of the Issuer and the Parent has in the Keepwell Deed provided certain other undertakings relating to the Issuer, the Intragroup Financing Agreements and the Financing Guarantees.

8.2 Undertakings relating to NDRC

The Issuer undertakes to the Preference Shareholders and the Trustee to file or cause to be filed with the National Development and Reform Commission of the PRC (the "**NDRC**") the requisite information and documents in respect of the issuance of the Preference Shares within the prescribed time frame and in accordance with the Notice on Promoting the Reform of the Filing and Registration System for Issuance of Foreign Debt by Corporates (國家發展改革委關於推進企業發行外債備案登記制管理改革的通知(發改外資[2015]2044號)) promulgated by the NDRC on 14 September 2015 which came into effect immediately and any implementation rules as issued by the NDRC from time to time (the "**Post-Issuance Filing**").

The Issuer shall, within 10 PRC Business Days after submission of the Post-Issuance Filing, provide the Trustee with (i) a certificate in English in substantially the form set out in the Trust Deed signed by an Authorised Signatory of the Issuer confirming the submission of the Post-Issuance Filing and (ii) copies of the relevant documents evidencing the Post-Issuance Filing (if any), each certified in English as being a true and complete copy of the original by an Authorised Signatory of the Issuer (together, the "**NDRC Filing Documents**").

The Trustee may rely conclusively on the NDRC Filing Documents and shall have no obligation or duty to monitor or ensure or to assist with the Post-Issuance Filing within the prescribed time frame or to verify the accuracy, completeness, content, validity and/or genuineness of any documents in relation to or in connection with the Post-Issuance Filing or to translate or procure that any NDRC Filing Document is translated into English or to give notice to the Preference Shareholders confirming the completion of the Post-Issuance Filing, and shall not be liable to Preference Shareholders or any other person for not doing so.

8.3 Undertakings relating to SAFE Registration

The Parent has undertaken in the Financing Guarantees to file or cause to be filed with the State Administration of Foreign Exchange of the PRC or its local branch ("**SAFE**") the Financing Guarantees within the prescribed timeframe after execution of each Financing Guarantee in accordance with the Provisions on the Foreign Exchange Administration of Cross-Border Guarantees (跨境擔保外匯管理規定) promulgated by SAFE on 12 May 2014 which came into effect on 1 June 2014 (the "**Cross-Border Security Registration**"). The Parent shall use all reasonable endeavours to complete or procure to be completed the Cross-Border Security Registration in respect of each Financing Guarantee and obtain a registration certificate from SAFE (or any other document evidencing the completion of registration issued by SAFE) in respect of each Financing Guarantee on or before the Registration Deadline and shall comply with all applicable PRC laws and regulations in relation to the Financing Guarantees.

The Parent shall, on or before the Registration Deadline, provide the Trustee with (i) a certificate in English substantially in the form set out in the Trust Deed signed by an Authorised Signatory of the Parent confirming the completion of the Cross-Border Security Registration in respect of each Financing Guarantee; and (ii) a copy of the SAFE registration certificate (or any other document evidencing the completion of registration issued by SAFE) and the particulars of registration in respect of each Financing Guarantee, each certified in English as a true and complete copy of the original by an Authorised Signatory of the Parent (the documents in (i) and (ii) being the "**Registration Documents**"). In addition, the Issuer shall within 10 PRC Business Days after the documents comprising the Registration Documents are delivered to the Trustee, give notice to the Preference Shareholders (in accordance with Condition 12) confirming the completion of the Cross-Border Security Registration in respect of each Financing Guarantee.

The Trustee may rely conclusively on the Registration Documents and shall have no obligation or duty to monitor or ensure or to assist with the Cross-Border Security Registration within the prescribed time frame or to verify the accuracy, completeness, content, validity and/or genuineness of any documents in relation to or in connection with the Cross-Border Security Registration or to translate or procure that any Registration Document is translated into English or to give notice to the Preference Shareholders confirming the completion of the Cross-Border Security Registration, and shall not be liable to Preference Shareholders or any other person for not doing so.

8.4 Financial Statements etc.

The Parent has undertaken in the Trust Deed that so long as any Preference Share remains outstanding, it shall furnish the Trustee with:

(i) a Compliance Certificate of the Parent (on which the Preference Shareholders and the Trustee may rely conclusively as to such compliance and shall be under no obligation to verify the information contained therein) and a copy of the relevant Parent Audited Financial Reports within 150 days of the end of each Relevant Period (audited by an internationally or a nationally recognised firm of independent accountants) and if such statements shall be in the Chinese language, together with an English translation of the same translated by (A) an internationally or a nationally recognised firm of accountants or (B) a professional translation service provider and checked by an internationally or a nationally recognised firm of accountants (and the Preference Shareholders and the Trustee shall have no obligation to verify the completeness or accuracy of any such translation or that the person who has translated the relevant Parent Audited Financial Reports meets the requirements of (A) or (B) above and may rely conclusively without liability on any such translation furnished to it with the relevant Parent Audited Financial Reports); and

(ii) a copy of the Parent Unaudited Financial Statements within 90 days of the end of each Relevant Period prepared on a basis consistent with the Parent Audited Financial Reports and if such statements shall be in the Chinese language, together with an English translation of the same and translated by (A) an internationally or a nationally recognised firm of accountants or (B) a professional translation service provider and checked by an internationally or a nationally recognised firm of accountants (and the Preference Shareholders and the Trustee shall have no obligation to verify the completeness or accuracy of any such translation or that the person who has translated the relevant Parent Unaudited Financial Statements meets the requirements of (A) or (B) above and may rely conclusively without liability on any such translation furnished to it with the relevant Parent Unaudited Financial Statements),

provided that, if at any time the capital stock of the Parent is listed for trading on a recognised stock exchange, the Parent may furnish the Trustee, as soon as they are available but in any event not more than 30 days after any financial reports of the Parent are filed with the stock exchange on which the Parent's capital stock is at such time listed for trading, with copies of any financial reports of the Parent filed with such stock exchange in lieu of the Parent Audited Financial Reports and the Parent Unaudited Financial Statements referred to in this Condition 8.4 and, if such financial reports shall be in the Chinese language, together with an English translation of the same translated by (x) an internationally or a nationally recognised firm of accountants or (y) a professional translation service provider and checked by an internationally or a nationally recognised firm of accountants (and the Preference Shareholders and the Trustee shall have no obligation to verify the completeness or accuracy of any such translation or that the person who has translated such financial reports meets the requirements of (x) or (y) above and may rely conclusively without liability on any such translation furnished to it with such financial reports), in lieu of the documents identified in this Condition 8.4.

Subject to the Articles of Association, Preference Shareholders have no general right under Cayman Islands law to inspect or obtain copies of the Issuer's list of Shareholders or corporate records.

9 ENFORCEMENT EVENT

9.1 Enforcement Event

Notwithstanding any other provisions of the Preference Shares, the right of Preference Shareholders and the Trustee to institute proceedings for Winding-Up of the Issuer is limited to circumstances where payment in respect of the Preference Shares has become due and remains unpaid as set out in the paragraph below. In the case of any Dividend, such Dividend will not be due if the Issuer has elected to defer that Dividend (including any Arrears of Dividend or Additional Dividend Amounts) in accordance with Condition 4.6.

If default is made in the payment of any amount of the Liquidation Preference or Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) in respect of the Preference Shares on the due date of payment thereof and such failure continues for a period of 14 days or more (each, an "**Enforcement Event**"), then in order to enforce the obligations of the Issuer, the Trustee at its sole discretion may and, if so requested by Holders of at least 25.0 per cent. in aggregate Liquidation Preference of the Preference Shares then issued and outstanding, shall (subject to the Trustee in any such case having been indemnified and/or provided with security and/or pre-funded to its satisfaction) institute proceedings for the Winding-Up of the Issuer and/or prove and/or claim in the Winding-Up of the Issuer for such payment.

9.2 Winding-Up of the Issuer or the Parent

In the event of a Winding-Up of the Issuer or the Parent (whether or not an Enforcement Event has occurred and is continuing), the Trustee at its sole discretion may and, if so requested by Holders of at least 25.0 per cent. in aggregate Liquidation Preference of the issued and outstanding Preference Shares, shall (subject to the Trustee in any such case having been indemnified and/or provided with security and/or pre-funded to its satisfaction) give written notice to the Issuer declaring the Liquidation Preference in respect of the Preference Shares to be immediately due and payable, whereupon such Liquidation Preference together with accrued but unpaid Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) up to but excluding the date of actual payment shall become immediately due and payable without further action or formality.

9.3 Enforcement of the Preference Shares

Without prejudice to Conditions 9.1 and 9.2, the Trustee may subject as provided below, at its discretion and without further notice, take such steps and/or actions and/or institute such proceedings against the Issuer and the Parent if the Issuer or the Parent fails to perform, observe or comply with any obligation, condition or provision relating to the Preference Shares binding on it under these Conditions, the Articles of Association, the Keepwell Deed and/or the Trust Deed (other than any obligation of the Issuer for the payment of the Liquidation Preference or any Dividends in respect of the Preference Shares), provided that the Issuer shall not as a consequence of such actions and/or steps and/or proceedings be obliged to pay any sum or sums representing or measured by reference to Liquidation Preference or Dividends in respect of the Preference Shares sooner than the same would otherwise have been payable by it.

The Trustee shall not be bound to take action as referred to in this Condition 9 or any other action under the Trust Deed, these Conditions, the Preference Shares, the Articles of Association and/or the Keepwell Deed or to exercise and enforce the Issuer's rights under the Intragroup Financing Agreements and/or the Financing Guarantees on behalf of the Issuer unless (a) it shall have been so

requested by Preference Shareholders holding at least 25 per cent. in aggregate Liquidation Preference of the Preference Shares then issued and outstanding and (b) it shall have been indemnified and/or provided with security and/or put in funds to its satisfaction. Subject to applicable laws and regulations, no remedy (including the exercise of any right of set-off or analogous event) other than those provided for in this Condition 9 or submitting a claim in the Winding-Up of the Issuer will be available to the Trustee or the Preference Shareholders.

Subject to applicable laws and regulations, no Preference Shareholder shall be entitled to proceed directly against the Issuer or the Parent unless the Trustee, having become bound so to proceed, fails to do so within a reasonable period and such failure is continuing. No Preference Shareholder shall be entitled either to institute proceedings for the Winding-Up of the Issuer or to submit a claim in such Winding-Up of the Issuer, except that if the Trustee, having become bound to institute such proceedings as aforesaid, fails to do so, or, being able and bound to submit a claim in such Winding-Up of the Issuer, fails to do so, in each case within a reasonable period and such failure is continuing, in which case the Preference Shareholders shall have only such rights against the Issuer as those which the Trustee is entitled to exercise as set out in this Condition 9.

9.4 Enforcement of the Intragroup Financing Agreements and the Financing Guarantees

The Issuer has pursuant to the Trust Deed granted an irrevocable power of attorney (the "**Power of Attorney**") to the Trustee and its custodian, agent, delegate or nominee (each, an "**Appointee**") to, in such manner as the Trustee or the Appointee thinks fit, enforce the Issuer's rights under the Intragroup Financing Agreements and the Financing Guarantees on behalf of the Issuer in the event of (i) a Winding-Up of any Financing Recipient or the Parent; and/or (ii) any amount under any Intragroup Financing Agreement and/or any Financing Guarantee payable by any Financing Recipient or the Parent to the Issuer not being paid when due or (as the case may be) within any applicable grace period.

Other than the enforcement rights granted pursuant to the Power of Attorney, the Trustee and any Appointee shall not be entitled to enforce the Issuer's rights under the Intragroup Financing Agreements or the Financing Guarantees.

10 PRESCRIPTION

Any Dividend (including any Arrears of Dividend and any Additional Dividend Amounts) unclaimed after a period of 5 years from the date when it became due for payment and any Liquidation Preference unclaimed after a period of 10 years from the date when it became due for payment shall be forfeited and shall revert to the Issuer, and the payment by the Board of any unclaimed Dividend (including any Arrears of Dividend and any Additional Dividend Amounts) or other sum payable on or in respect of a Preference Share into a separate account shall not constitute the Issuer a trustee in respect of it. No Dividend or other monies paid on or in respect of the Preference Shares and which remains available to be claimed shall bear interest as against the Issuer.

11 VOTING RIGHTS AND MEETINGS

11.1 Voting Rights of Preference Shareholders

The Preference Shareholders shall not be entitled to convene, attend or vote at any Shareholders' meeting, except as set forth in this Condition 11 or as otherwise from time to time required by law.

For so long as any Preference Share remains outstanding, the Preference Shareholders will be entitled to attend the Shareholders' meeting and will be entitled to one vote for each issued and outstanding Preference Share and vote together with other Preference Shareholders as a separate class from the Ordinary Shareholders, in respect of the following matters:

(i) any modification, amendment or revocation of the rights and/or privileges attached to the Preference Shares in these Conditions, the Articles of Association or the Keepwell Deed;

(ii) any other matter relating to the Issuer or the Ordinary Shares that is materially prejudicial to the interests of the Preference Shareholders;

(iii) the convening of proceedings for the administration, voluntary liquidation, dissolution, reorganisation, division, merger, amalgamation, consolidation or corporate reconstruction of the Issuer;

(iv) the convening of proceedings for the dissolution, reconstruction, amalgamation, reorganisation, merger or consolidation of the Parent or any Financing Recipient that would otherwise constitute a Winding-Up of the Parent or such Financing Recipient under these Conditions or the Intragroup Financing Agreements, as the case may be;

(v) the amending, supplementing, varying or waiving of any provision of the Intragroup Financing Agreements, the exercising of any right to rescind, cancel or terminate the Intragroup Financing Agreements, the transfer or assigning of any right under the Intragroup Financing Agreements or waiving or consenting to any breach or proposed breach of any provision of the Intragroup Financing Agreements, except for any such action by the Issuer that is not materially prejudicial to the interests of the Issuer and/or any class of shareholders of the Issuer;

(vi) the amending, supplementing, varying or waiving of any provision of the Financing Guarantees, the exercising of any right to rescind, cancel or terminate the Financing Guarantees, the transfer or assigning of any right under the Financing Guarantees or waiving or consenting to any breach or proposed breach of any provision of the Financing Guarantees, except for any such action by the Issuer that is not materially prejudicial to the interests of the Issuer and/or any class of shareholders of the Issuer;

(vii) the use of any amounts received by the Issuer pursuant to the Intragroup Financing Agreements or the Financing Guarantees (other than any Surplus) for any purposes other than payment to the Preference Shareholders pursuant to these Conditions or redemption of the Preference Shares in accordance with Condition 6 or to cover all amounts referred to in Clause 5.1(vi) of the Keepwell Deed; and/or

(viii) any consent by the Issuer to the exercise or claim of any right of set-off or counterclaim by the Financing Recipients or the Parent in respect of any amounts due and payable to the Issuer under the Intragroup Financing Agreements or the Financing Guarantees respectively,

(each, a "**Preference Shareholder Matter Resolution**"). The Preference Shares held by, or on behalf of, the Issuer, the Parent, the Financing Recipients or any of their respective Subsidiaries shall have no voting rights.

Passing of the Preference Shareholder Matter Resolution shall require (a) more than two-third of votes held by the Preference Shareholders present at the meeting and (b) more than two-third of votes held by the Ordinary Shareholders present at the meeting.

The Issuer shall, in accordance with the Articles of Association, notify the Preference Shareholders of any Shareholders' meeting in relation to a Preference Shareholder Matter Resolution.

For the avoidance of doubt, a Preference Shareholder Matter Resolution shall not be required for (i) any issuance of Ordinary Shares to the Parent or to any wholly-owned Subsidiary of the Parent; or (ii) the entry into any shareholders' loan that ranks or is expressed to rank, by their terms or by operation of law, in right of payment behind the claims of the Preference Shareholders.

The Surplus can be used at the full discretion of the Issuer, including being applied towards payment of distributions to its Ordinary Shareholders, but until the Surplus is used, it shall remain the general funds of the Issuer.

11.2 Meetings of Shareholders

The provisions of Articles 22.1(a), 22.1(c) to 22.3(a), 22.3(c) to 22.18 shall apply to the conduct of any Shareholders' meeting convened to consider a Preference Shareholder Matter Resolution. The quorum for any meeting convened to consider a Preference Shareholder Matter Resolution is set out in Articles 22.1(a) and 22.3(a).

In addition, the provisions relating to virtual meetings, Written Resolutions and Electronic Consent (each term as defined in the Trust Deed) as set out in Schedule 3 of the Trust Deed shall be applicable to any Preference Shareholder Matter Resolution.

12 NOTICES

The provisions of paragraphs 44.1 to 44.5 of the Articles of Association of shall apply to the giving of notices to the Preference Shareholders.

So long as the Global Certificate is held on behalf of Euroclear and Clearstream, any notice to the Preference Shareholders shall be validly given by the delivery of the relevant notice to Euroclear and Clearstream for communication by the relevant clearing system to entitled accountholders in substitution for notification as required by these Conditions and shall be deemed to have been given on the date of delivery to such clearing system.

13 AGENTS

The Principal Paying Agent, the Registrar, the Transfer Agent and the Calculation Agent initially appointed by the Issuer and their respective specified offices are listed below. The Principal Paying Agent, the Registrar, the Transfer Agent and the Calculation Agent act solely as agents of the Issuer and do not assume any obligations towards or relationship of agency or trust for or with any of the Preference Shareholders. The Issuer reserves the right at any time with the prior approval of the Trustee (where required in accordance with the Agency Agreement) to vary or terminate the appointment of the Principal Paying Agent, the Registrar, the Transfer Agent, the Calculation Agent or any of the other Agents and to appoint additional or other Agents, provided that the Issuer shall at all times maintain (i) a Principal Paying Agent, (ii) a Registrar, (iii) a Transfer Agent, and (iv) a Calculation Agent.

Notice of any such change or any change of any specified office of an Agent shall promptly be given by the Issuer to the Preference Shareholders in accordance with Condition 12.

14 FURTHER ISSUES

The Issuer may not create and issue further Preference Shares ranking as regards participation in the profits and assets of the Issuer equally in all respects with the Preference Shares without a Preference Shareholder Matter Resolution.

15 CONTRACTS (RIGHTS OF THIRD PARTIES) ACT (AS REVISED)

Save as provided for in Condition 9.3, no person shall have any right to enforce any term or condition of the Preference Shares under the Contracts (Rights of Third Parties) Act (As Revised).

16 INDEMNIFICATION OF THE TRUSTEE

The Trust Deed contains provisions for the indemnification of the Trustee and for its relief from responsibility, including, without limitation, provisions relieving it from taking any steps and/or actions and/or instituting any proceedings to enforce its rights in accordance with these Conditions and/or in respect of the Preference Shares and/or from taking other steps and/or actions and/or instituting proceedings unless first indemnified and/or secured and/or pre-funded to its satisfaction and entitling the Trustee to be paid or reimbursed for its fees, costs, expenses and indemnity payments and for any liabilities incurred by it in priority to the claims of Preference Shareholders. The Trustee is entitled to enter into business transactions with the Issuer, the Parent and/or any entity related (directly or indirectly) to the Issuer or the Parent without accounting for any profit.

The Trustee may rely conclusively, and may act or refrain from acting, in each case without liability to the Preference Shareholders, the Issuer, the Parent or any other person on any report, confirmation, certificate or information from or any advice or opinion of any accountants, auditors, lawyers, valuers, auctioneers, surveyors, brokers, financial advisers, financial institution or any other expert, whether or not obtained by or addressed to it and whether their liability in relation thereto is limited (by its terms or by any engagement letter relating thereto entered into by the Trustee or any other person in any other manner) by reference to a monetary cap, methodology or otherwise. The Trustee may accept and shall be entitled to rely conclusively on any such report, confirmation, certificate, information, advice or opinion, in which event such report, confirmation, certificate, information, advice or opinion shall be binding on the Preference Shareholders.

Whenever the Trustee is required or entitled by the terms of the Trust Deed, the Agency Agreement, the Keepwell Deed or these Conditions to exercise any discretion or power, take or refrain from taking any action, make any decision or give any direction or certification, the Trustee is entitled, prior to exercising any such discretion or power, taking or refraining from taking any such action, making any such decision or giving any such direction or certification, to seek directions from the Preference Shareholders or clarification of any directions, and the Trustee shall be entitled to rely on any such direction or clarification and shall not be responsible or liable for any loss or liability incurred by the Issuer, the Parent, the Preference Shareholders or any other person as a result of any delay in it exercising such discretion or power, taking or refraining from taking such action, making such decision or giving such direction or certification where the Trustee is seeking such direction or clarification of any directions from the Preference Shareholders or in the event that the instructions sought are not provided by the Preference Shareholders. None of the Trustee or any Agent shall be liable to any Preference Shareholder, the Issuer, the Parent or any other person for any action taken by the Trustee in accordance with the instructions or any direction or request of the Preference Shareholders. The Trustee shall be entitled to rely on any direction or instruction or request of Preference Shareholders as contemplated or permitted by the Trust Deed and/or the Preference Shares.

None of the Trustee or any of the Agents shall be responsible for the performance by the Issuer, the Parent, and any other person appointed by the Issuer or the Parent in relation to the Preference Shares, of the duties and obligations on their part expressed in respect of the same and, unless it has express notice in writing to the contrary, the Trustee and each Agent shall be entitled to assume that the same are being duly performed.

None of the Trustee or any of the Agents shall have any obligation to monitor or take any steps to ascertain compliance with the provisions of the Articles of Association, the Keepwell Deed, the Intragroup Financing Agreements, the Financing Guarantees and/or the Trust Deed or these Conditions or whether an Enforcement Event or any event or circumstance which could, with the giving of notice, lapse of time, the issuing of a certificate and/or fulfilment of any other requirement provided for in Condition 9 become an Enforcement Event has occurred and shall not be liable to the Preference Shareholders or any other person for not doing so.

Each Preference Shareholder shall be solely responsible for making and continuing to make its own independent appraisal of and investigation into the financial condition, creditworthiness, condition, affairs, status and nature of the Issuer and the Parent, and the Trustee shall not at any time have any responsibility for the same and no Preference Shareholders shall rely on the Trustee in respect thereof.

17 GOVERNING LAW AND JURISDICTION

17.1 Governing Law

The Preference Shares and the rights and obligations attached to them are governed by, and shall be construed in accordance with, the laws of the Cayman Islands.

17.2 Jurisdiction

The courts of Hong Kong are to have exclusive jurisdiction to settle any disputes that may arise out of or in connection with any Preference Share and accordingly any legal action or proceedings arising out of or in connection with any Preference Share (a "**Proceeding**") may be brought in such courts. The Issuer irrevocably submits to the jurisdiction of such courts and waives any objection to Proceedings in such courts whether on the ground of venue or on the ground that the Proceedings have been brought in an inconvenient forum.

18 CURRENCY INDEMNITY

U.S. dollars is the sole currency of account and payment for all sums payable by the Issuer under or in connection with the Preference Shares (including damages). Any amount received or recovered in a currency other than U.S. dollars (whether as a result of, or of the enforcement of, a judgment or order of a court of any jurisdiction, in the Winding-Up of the Issuer or otherwise) by any Preference Shareholder in respect of any sum expressed to be due to it from the Issuer shall only constitute a discharge to the Issuer to the extent of the U.S. dollar amount which the recipient is able to purchase with the amount so received or recovered in that other currency on the date of that receipt or recovery (or, if it is not practicable to make that purchase on that date, on the first date on which it is practicable to do so). If that U.S. dollar amount is less than the U.S. dollar amount expressed to be due to the recipient under any Preference Share, the Issuer shall indemnify such recipient against any loss sustained by it as a result. In any event, the Issuer shall indemnify such recipient against the cost of making any such purchase. For the purposes of this Condition 18, it will be sufficient for the Preference Shareholder to demonstrate that it would have suffered a loss had an actual purchase been made. These indemnities constitute a separate and independent obligation from the Issuer's other obligations, shall give rise to a separate and independent cause of action, shall apply irrespective of any indulgence granted by any Preference Shareholder and shall continue in full force and effect despite any other judgment, order, claim or proof for a liquidated amount in respect of any sum due under any Preference Share or any other judgment or order.

19 DEFINITIONS

"**Board**" means the board of directors of the Issuer.

"**Breach of Covenants Event**" means the occurrence of (i) a Covenant Breach and (ii) the Trustee at its discretion or acting on the instructions of Holders of at least 25.0 per cent. in aggregate Liquidation Preference of the issued and outstanding Preference Shares, gives notice in writing to the Issuer that the Dividend Rate will be adjusted in accordance with Condition 4.7 unless the Preference Shares are redeemed in accordance with Condition 6.6.

"**Calculation Business Day**" means a day, other than a Saturday or Sunday or public holiday, on which commercial banks are open for general business in Hong Kong, New York and the place of the specified office of the Calculation Agent.

"**Change of Control Event**" means the occurrence of one or more of the following events:

(i) (x) SASAC and (y) any other person or persons (whether singly or in combination) directly or indirectly Controlled by the central government of the PRC (such person or persons and SASAC, the "**PRC Government Persons**" and each, a "**PRC Government Person**") together cease to directly or indirectly hold or own at least 50.1 per cent. of the issued ordinary share capital of the Parent;

(ii) the Parent ceases to directly or indirectly hold or own 100 per cent. of the outstanding Ordinary Shares of the Issuer; or

(iii) the Parent consolidates with or merges into or sells or transfers all or substantially all of the Parent's assets to any other person or persons, acting together, except (x) where such person(s) is/are Controlled by the PRC Government Person(s); or (y) where the Parent is the surviving entity after the consolidation or merger.

"**Comparable Treasury Price**" means, with respect to the Relevant Calculation Date, the average of three Reference Treasury Dealer Quotations for such Relevant Calculation Date or, if fewer than three such Reference Treasury Dealer Quotations are available, the average of any Reference Treasury Dealer Quotations.

"**Compulsory Dividend Payment Event**" means circumstances in which during the three-month period ending on the day before the relevant scheduled Dividend Payment Date either or both of the following have occurred:

(i) the Issuer has declared or paid any discretionary dividends or discretionary distributions or made any other discretionary payment, or has procured that such discretionary dividend, discretionary distributions or other discretionary payment is made, on any Parity Obligations or Junior Obligations of the Issuer; or

(ii) the Issuer has at its discretion redeemed, reduced, cancelled, bought-back or otherwise acquired for any consideration any Parity Obligations or Junior Obligations of the Issuer prior to its stated maturity.

"**Comparable US Treasury Issue**" means in relation to calculating the Relevant Reset Dividend Rate, the US Treasury security selected by the Issuer and notified in writing by the Issuer as having a maturity of three years that would be utilised, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities with a maturity of three years.

"**Compliance Certificate**" means a certificate of the Parent (on behalf of itself and the Issuer) in English in the form scheduled to the Trust Deed signed by an Authorised Signatory of the Parent that, having made all reasonable enquiries, to the best knowledge, information and belief of the Parent (on behalf of itself and the Issuer), as at a date (the "**Certification Date**") not more than five days before the date of the certificate that:

(i) no Enforcement Event, or any event or circumstance which could, with the giving of notice, lapse of time, the issuing of a certificate and/or fulfilment of any other requirement provided for in Condition 9 become an Enforcement Event has occurred since the Certification Date of the last such certificate or (if none) the Issue Date or, if such an event had occurred, giving details of it; and

(ii) each of the Issuer and the Parent has complied with all its covenants and obligations under the Trust Deed, the Conditions, the Articles of Association, the Intragroup Financing Agreements, the Financing Guarantees and the Preference Shares (as applicable).

"**Control**" means (A) the ownership, acquisition or control of more than 50 per cent. of the voting rights of the issued share capital of a person, (B) the right to appoint and/or remove all or the majority of the members of a person's board of directors or other governing body, whether obtained directly or indirectly, and whether obtained by ownership of share capital, the possession of voting rights, contract or otherwise or (C) the possession, directly or indirectly, of the power to direct or cause the direction of the management policies of such person, and the term "**Controlled**" has a meaning correlative to the foregoing.

"**Covenant Breach**" means a non-compliance and/or non-performance of any one or more of the obligations and covenants set out in Condition 4.6(v) or 8.

"**First Call Date**" means 9 October 2024.

"**First Reset Date**" means 9 November 2024.

"**Indebtedness**" means all indebtedness for moneys borrowed or raised (whether senior or subordinated).

"**Initial Spread**" means 2.633 per cent. per annum.

"**Junior Obligations**" means:

(i) in respect of the Issuer, the Ordinary Shares of the Issuer or any other class of the Issuer's share capital (but excluding any preference shares) and any other obligation issued, entered into or guaranteed by the Issuer that ranks or is expressed to rank, by its terms or by operation of law, junior to the Preference Shares; and

(ii) in respect of the Parent, any Subordinated Indebtedness issued or guaranteed by the Parent, any class of the Parent's share capital (including any preference shares) and any other obligation issued, entered into or guaranteed by the Parent that ranks or is expressed to rank, by its terms or by operation of law, junior to the Financing Guarantees.

"**Maximum Dividend Rate**" means:

(i) in respect of each Dividend Payment Date, the period from, and including the Issue Date, to, but excluding, the First Reset Date, the Initial Dividend Rate plus 3.00 per cent. per annum; and

(ii) in respect of the period (a) from, and including the First Reset Date, to, but excluding, the Reset Date falling immediately after the First Reset Date, and (b) from, and including, each Reset Date falling after the First Reset Date to, but excluding, the immediately following Reset Date, the Relevant Reset Dividend Rate plus 3.00 per cent. per annum.

"**Ordinary Shares**" means the ordinary share(s) of the Issuer of par value U.S.$1.00 each in the share capital of the Issuer and any other class of ordinary shares of the Issuer in issue from time to time.

"**Ordinary Shareholders**" means the holders of the Ordinary Shares.

"**Parent Audited Financial Reports**" means, for a Relevant Period the annual audited consolidated financial statements of the Parent together with any statements, reports (including, if any, any directors' and auditors' reports) and notes attached to or intended to be read with any of them, prepared in accordance with the applicable PRC GAAP or other internationally recognised generally accepted accounting principles.

"**Parent Unaudited Financial Statements**" means, for a Relevant Period, the unaudited and unreviewed consolidated income statements, balance sheets and cash flow statements of the Parent without any notes or reports attached, prepared on a basis consistent with the Parent Audited Financial Reports.

"**Parity Obligations**" means:

(i) in respect of the Issuer, any other class of preference shares in the capital of the Issuer, any instrument or security issued, entered into or guaranteed by the Issuer that ranks or is expressed to rank, by its terms or by operation of law, *pari passu* to the Preference Shares; and

(ii) in respect of the Parent, any unsecured and unsubordinated instrument or security issued, entered into or guaranteed by the Parent that ranks or is expressed to rank, by its terms or by operation of law, *pari passu* to the Financing Guarantees.

"**Payment Business Day**" means, a day other than a Saturday or Sunday on which commercial banks are open for business in the Cayman Islands, Hong Kong, New York and the city in which the specified office of the Principal Paying Agent is located.

"**PRC**" means the People's Republic of China, excluding for the purpose of these Conditions only the Hong Kong Special Administrative Region of the PRC, the Macau Special Administrative Region of the PRC and Taiwan.

"**PRC Business Day**" means a day (other than a Saturday, Sunday or public holiday) on which commercial banks are generally open for business in Beijing.

"**PRC GAAP**" means the generally accepted accounting principles in the PRC in effect from time to time.

"**Reference Treasury Dealer**" means each of the three nationally recognised firms that are primary U.S. Government securities dealers selected by the Issuer and notified in writing by the Issuer to the Calculation Agent.

"**Reference Treasury Dealer Quotations**" means, with respect to each Reference Treasury Dealer and a Relevant Calculation Date, the average as determined by the Calculation Agent, of the bid and asked prices for the Comparable US Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Issuer at its request by such Reference Treasury Dealer at 5:00 p.m. (New York City time) on such Relevant Calculation Date and notified in writing by the Issuer.

"**Registration Deadline**" means the day falling 150 PRC Business Days after the Issue Date.

"**Relevant Calculation Date**" means the third Calculation Business Day immediately preceding the relevant Reset Date.

"**Relevant Date**" in respect of any Preference Share means the date on which payment in respect of it first becomes due or (if any amount of the money payable is improperly withheld or refused) the date on which payment in full of the amount outstanding is made or (if earlier) the date falling seven days after that on which notice is duly given to the Preference Shareholders that, upon further surrender of the Certificate representing such Preference Share being made in accordance with the Conditions, such payment will be made, provided that payment is in fact made upon such surrender.

"**Relevant Indebtedness Default Event**" means the occurrence of one or more of the following events (and such event is continuing): (i) any other present or future indebtedness of the Issuer or the Parent or any of their respective Subsidiaries for or in respect of moneys borrowed or raised becomes due and payable prior to its stated maturity by reason of any actual or potential default, event of default or the like (howsoever described), or (ii) principal of any such indebtedness for or in respect of moneys borrowed or raised is not paid when due or, as the case may be, within any originally applicable grace period, or (iii) the Issuer or the Parent or any of their respective Subsidiaries fails to pay when due any amount payable by it under any present or future guarantee for, or indemnity in respect of, any principal of moneys borrowed or raised, provided that the aggregate outstanding amount of the relevant indebtedness, guarantees and indemnities in respect of which one or more of the events mentioned above in this definition have occurred equals or exceeds 2.0 per cent. of the Total Equity of the Parent or its equivalent (on the basis of the middle spot rate for the relevant currency against the Renminbi as quoted by any leading bank on the day on which this provision operates), where "**Total Equity**" means, as of any date, the total owners' equity of the Parent, on a consolidated basis determined in accordance with PRC GAAP or other internationally recognised generally accepted accounting principles.

"**Relevant Period**" means, in relation to the Parent Audited Financial Reports, each period of 12 months ending on the last day of the Parent's financial year (being 31 December of that financial year), and in relation to the Parent Unaudited Financial Statements, each period of three months, six months and nine months, respectively, ending on the last day of each quarter of the Parent's financial year (being 31 March, 30 June and 30 September, respectively, of that financial year), insofar as the Parent publishes such quarterly financial statements pursuant to applicable laws and regulations.

"**Relevant Reset Dividend Rate**" in respect of any Reset Period means the Dividend rate per annum (expressed as a percentage) representing the sum of (1) the 3-year US Treasury Rate in relation to that Reset Period, (2) the Initial Spread and (3) the Step-up Margin.

"**Reset Date**" means the First Reset Date and each date that falls three years or a multiple of three years following the First Reset Date.

"**Reset Period**" means the period from and including the First Reset Date to but excluding the next succeeding Reset Date, and each successive period from and including a Reset Date to but excluding the next succeeding Reset Date.

"**SASAC**" means State-owned Assets Supervision and Administration Commission of the State Council of the PRC (國務院國有資產監督管理委員).

"**Shareholders**" means the holders of any class of share of the Issuer from time to time.

"**Step-up Margin**" means 3.00 per cent. per annum.

"**Step-up Rate**" means 3.00 per cent. per annum.

"**Subordinated Indebtedness**" means all Indebtedness which, in the event of the Winding-Up of the Parent, ranks, or is expressed to rank, by its terms or by operation of law, in right of payment behind the claims of unsecured and unsubordinated creditors of the Parent, and for this purpose Indebtedness shall include all liabilities, whether actual or contingent.

"**Subsidiary**" of any person means (i) any company or other business entity of which that person owns or controls (either directly or through one or more other Subsidiaries) more than 50 per cent. of the issued share capital or other ownership interest having ordinary voting power to elect directors, managers or trustees of such company or other business entity, or (ii) any company or other business entity which at any time has its accounts consolidated with those of that person or which, under the law, regulations or generally accepted accounting principles of the jurisdiction of incorporation of such person from time to time, should have its accounts consolidated with those of that person.

"**Surplus**" means the excess of (i) any amount of distribution (including any arrears of distribution and any additional distribution amounts) received by the Issuer pursuant to the Intragroup Financing Agreements or the Financing Guarantees during a Dividend Period over (ii) any amount of Dividends (including any Arrears of Dividend and any Additional Dividend Amounts) scheduled to be due and payable for such Dividend Period together with any amounts sufficient to cover those fees, costs, expenses, taxes and duties referred to in Clauses 5(vi)(b) and 5(vi)(c) of the Keepwell Deed incurred from time to time but unpaid, whether due and payable in such Dividend Period or not, provided that no such Surplus shall be recognised where the Dividend for such Dividend Period (and any Arrears of Dividend and any Additional Dividend Amounts) has been deferred (in whole or in part) and/or otherwise not paid to the Preference Shareholders.

"**US Treasury Rate**" means the rate per annum expressed as a percentage as determined by the Calculation Agent that is equal to the yield (that represents the average of the daily yields for the week immediately prior to the applicable Relevant Calculation Date) derived from the most recently published statistical release designated "H.15" or any successor publication that is published by the Board of Governors of the Federal Reserve System and that establishes yields on actively traded US Treasury securities adjusted to constant maturity under the caption "Treasury constant maturities" for the maturity corresponding to the Comparable US Treasury Issue. If there is no Comparable US Treasury Issue with a maturity within three months before or after the next Reset Date (in the case of any determination of the Relevant Reset Dividend Rate), yields for the two published maturities most closely corresponding to such Reset Date will be determined and the US Treasury Rate shall be interpolated or extrapolated from such yields on a straight line basis, rounding to the nearest month. If such release (or any successor release) is not published during the week preceding the applicable Relevant Calculation Date or does not contain such yields, "**US Treasury Rate**" shall mean the rate per annum (expressed as a percentage) equal to the yield to maturity of the Comparable US Treasury Issue, calculated using a price for the Comparable US Treasury Issue (expressed as a percentage of its nominal amount) equal to the Comparable Treasury Price for the Relevant Calculation Date. If there is no Comparable Treasury Price for the Relevant Calculation Date, the "**US Treasury Rate**" shall mean the rate per annum (expressed as a percentage) as determined by the Calculation Agent that is equal to the yield (that represents the average of the daily yields for the week immediately prior to the applicable Relevant Calculation Date) derived from the most recently published statistical release designated "H.15" or any successor publication that is published by the Board of Governors of the Federal Reserve System and that establishes yields on actively traded US Treasury securities adjusted to constant maturity under the caption "Treasury constant maturities" for the maturity corresponding to the Comparable US Treasury Issue.

"**Winding-Up**" means, with respect to any person, a final and effective order or resolution for the bankruptcy, winding up, liquidation, receivership or similar proceedings in respect of such person, except (A) for the purpose of and followed by a voluntary solvent winding-up of such person, or the substitution in place of such person of a successor in business; or (B) for the purpose of any dissolution, reconstruction, amalgamation, reorganisation, merger or consolidation of such person on terms approved by a Preference Shareholder Matter Resolution.

SUMMARY OF PROVISIONS RELATING TO THE PREFERENCE SHARES IN GLOBAL FORM

The Global Certificate contains provisions which apply to the Preference Shares in respect of which the Global Certificate is issued, some of which modify the effect of the Terms and Conditions of the Preference Shares set out in this Offering Circular. Terms defined in the Terms and Conditions of the Preference Shares have the same meaning in the paragraphs below. The following is a summary of those provisions:

The Preference Shares will be represented by a Global Certificate in registered form, which will be registered in the name of a nominee of, and deposited with, a common depositary for Euroclear and Clearstream.

Under the Global Certificate, the Issuer, for value received, promises to pay the aggregate Liquidation Preference and Dividends (including if any, any Arrears of Dividend and any Additional Dividend Amount) on the Preference Shares to the holder thereof on such date or dates as the same may become payable in accordance with the Terms and Conditions of the Preference Shares.

Owners of interests in the Preference Shares in respect of which the Global Certificate is issued will be entitled to have title to such Preference Shares registered in their names and to receive individual definitive Certificates if either Euroclear or Clearstream or any other clearing system (an "**Alternative Clearing System**") is closed for business for a continuous period of 14 days (other than by reason of holidays, statutory or otherwise) or announces an intention permanently to cease business or does in fact do so. In such circumstances, the Issuer at its own expense will cause sufficient individual definitive Certificates to be executed and delivered to the Registrar for completion, authentication and despatch to the relevant holders of the Preference Shares. A person with an interest in any Preference Shares in respect of which the Global Certificate is issued must provide the Registrar not less than 30 days' notice at its specified office of such holder's intention to effect such exchange and a written order containing instructions and such other information as the Issuer and the Registrar may require to complete, execute and deliver such individual definitive Certificates.

PAYMENT

So long as of the Preference Shares are represented by the Global Certificate, each payment in respect of such Global Certificate will be made to, or to the order of, the person whose name is entered on the Register at the close of business on the Clearing System Business Day immediately prior to the date for payment, where "**Clearing System Business Day**" means a weekday (Monday to Friday inclusive) except 25 December and 1 January.

TRUSTEE'S POWERS

In considering the interests of the relevant holders while the Global Certificate is registered in the name of a nominee for a clearing system, the Trustee may, to the extent it considers it appropriate to do so in the circumstances, but without being obligated to do so, (a) have regard to any information as may have been made available to it by or on behalf of the relevant clearing system or its operator as to the identity of its accountholders (either individually or by way of category) with entitlements in respect of the Preference Shares and (b) consider such interests on the basis that such accountholders were the holders of the Preference Shares in respect of which the Global Certificate is issued.

NOTICES

So long as the Preference Shares are represented by the Global Certificate and the Global Certificate is held on behalf of Euroclear and Clearstream or any Alternative Clearing System, notices to holders of the Preference Shares shall be given by delivery of the relevant notice to Euroclear or Clearstream or such Alternative Clearing System, for communication by it to accountholders entitled to an interest in the Preference Shares in substitution for notification as required by the Terms and Conditions of the Preference Shares.

TRANSFERS

Transfers of beneficial interests in the Preference Shares represented by the Global Certificate will be effected through the records of Euroclear and Clearstream (or any Alternative Clearing System) and their respective participants in accordance with the rules and procedures of Euroclear and Clearstream (or any Alternative Clearing System) and their respective direct and indirect participants.

CANCELLATION

Cancellation of any Preference Share represented by the Global Certificate following its redemption or purchase by the Issuer, the Parent and their respective Subsidiaries will be effected by reduction in the Liquidation Preference of the Preference Shares in the Register.

ISSUER'S REDEMPTION

The option of the Issuer provided for in Conditions 6.2, 6.3, 6.4, 6.5, 6.6, 6.7 and 6.8 of the Terms and Conditions of the Preference Shares shall be exercised by the Issuer giving notice to the Trustee, the Preference Shareholders and the Principal Paying Agent within the time limits set out in and containing the information required by the Terms and Conditions of the Preference Shares.

MEETINGS

For the purposes of any meeting of Preference Shareholders, the holder of the Preference Shares represented by the Global Certificate shall (unless the Global Certificate represents only one Preference Share) be treated as two persons for the purposes of any quorum requirements of a meeting of Preference Shareholders and as being entitled to one vote in respect of each U.S.$1,000 of Liquidation Preference of such Preference Shares for which the Global Certificate is issued.

DESCRIPTION OF THE KEEPWELL DEED

The following contains summaries of certain key provisions of the Keepwell Deed with respect to the Preference Shares. Such statements do not purport to be complete and are qualified in their entirety by reference to the Keepwell Deed. Unless otherwise defined herein, defined terms used in this section shall have the meanings given to them in the Keepwell Deed.

UNDERTAKINGS RELATING TO THE ISSUER

In the Keepwell Deed, the Parent has provided undertakings in favour of the Trustee, in its capacity as the trustee for itself, and the Preference Shareholders that, so long as any of any Preference Share remains outstanding, it shall:

(i) cause the Issuer to have sufficient liquidity and distributable reserves for timely payment by the Issuer of any amounts due and payable under or in respect of the Preference Shares in accordance with the Conditions, the Articles of Association, the Trust Deed and the Agency Agreement;

(ii) cause the Issuer to have a Consolidated Net Worth of at least U.S.$1.00 (or its equivalent in other currencies) at all times;

(iii) cause the Issuer to remain solvent and a going concern at all times under the laws of the Issuer's jurisdiction of incorporation or applicable accounting standards;

(iv) ensure that there is no dissolution or reorganisation of the Issuer and that the Issuer shall not enter into any division, merger, amalgamation or corporate reconstruction, other than as approved by a Preference Shareholder Matter Resolution;

(v) at all times directly or indirectly own 100 per cent. of the issued ordinary shares of the Issuer and not directly or indirectly transfer, mortgage, pledge, grant a security interest, or in any way encumber or otherwise dispose of any of the Issuer's ordinary shares;

(vi) ensure that the Issuer does not carry on any business activity or incur or have outstanding any indebtedness for moneys borrowed or raised (whether senior or subordinated) ("**Indebtedness**"), other than (a) borrowing activities and activities in connection with the issue of the Preference Shares or the entering into each Financing and the Financing Guarantees and any other activities reasonably incidental thereto and (b) the entry into any shareholders' loan that ranks or is expressed to rank, by their terms or by operation of law, in right of payment behind the claims of the Preference Shareholders;

(vii) ensure the Issuer does not create and issue further preference shares ranking as regards participation in the profits and assets of the Issuer equally in all respects with or senior to the Preference Shares; and

(viii) ensure that all liabilities owed by the Issuer to the Parent and/or other Subsidiaries of the Parent rank or are expressed to rank, by their terms or by operation of law, in right of payment behind the claims of the Preference Shareholders.

UNDERTAKINGS RELATING TO THE PREFERENCE SHARES

In the Keepwell Deed, each of the Issuer and the Parent has provided undertakings in favour of the Trustee, in its capacity as the trustee for itself, and the Preference Shareholders that, so long as any of any Preference Share remains outstanding, it shall:

(i) ensure that there shall not be any modification of the rights and privileges attached to the Preference Shares in the Conditions and the Articles of Association, other than as approved by a Preference Shareholder Matter Resolution;

(ii) ensure it will comply with all the provisions of the Conditions and the Preference Shares that are applicable to it (including the obligations of the Parent under Condition 4.6(v)); and

(iii) ensure that there is no other modification or revocation of the rights of the Preference Shareholders specified in the Conditions, the Articles of Association or the Keepwell Deed, other than as approved by a Preference Shareholder Matter Resolution.

UNDERTAKINGS RELATING TO THE FINANCINGS AND THE FINANCING GUARANTEES

In the Keepwell Deed, each of the Issuer and the Parent has provided undertakings in favour of the Trustee, in its capacity as the trustee for itself, and the Preference Shareholders that, so long as any of any Preference Share remains outstanding, it shall:

(i) not amend, supplement, vary or waive any provision of the Intragroup Financing Agreements, exercise any right to rescind, cancel or terminate the Intragroup Financing Agreements, transfer or assign any right under the Intragroup Financing Agreements or waive or consent to any breach or proposed breach of any provision of the Intragroup Financing Agreements, except for any such action by the Issuer that is not materially prejudicial to the interests of the Issuer and/or any class of shareholders of the Issuer;

(ii) not amend, supplement, vary or waive any provision of the Financing Guarantees, exercise any right to rescind, cancel or terminate the Financing Guarantees, transfer or assign any right under the Financing Guarantees or waive or consent to any breach or proposed breach of any provision of the Financing Guarantees, except for any such action by the Issuer or the Parent that is not materially prejudicial to the interests of the Issuer and/or any class of shareholders of the Issuer;

(iii) cause the Issuer to promptly exercise and enforce its rights under the Intragroup Financing Agreements and the Financing Guarantees to the full extent permitted by applicable law and the terms contained therein and, where applicable, as directed by the Trustee or, failing which, the Preference Shareholders;

(iv) cause any amounts received by the Issuer pursuant to the Intragroup Financing Agreements or the Financing Guarantees (other than any Surplus) not to be used for any purposes other than payment to the Preference Shareholders pursuant to the Conditions or redemption of the Preference Shares in accordance with the Terms and Conditions or to cover all amounts referred to in paragraph (vi) below. The Surplus can be used at the full discretion of the Issuer, including being applied towards payment of distributions to its Ordinary Shareholders, but until the Surplus is used, it shall remain the general funds of the Issuer;

(v) ensure that the Issuer shall not consent to the exercise or claim of any right of set-off or counterclaim by the Financing Recipients or the Parent in respect of any amounts due and payable to the Issuer under the Intragroup Financing Agreements or the Financing Guarantees respectively;

(vi) cause the amounts payable by the Financing Recipients under the Intragroup Financing Agreements to be at all times sufficient to (a) cover the Issuer's costs of funding and ensure the Issuer has sufficient distributable reserves to meet its obligations, (b) cover all fees, costs and expenses of the Issuer, including in respect of all administration and maintenance fees, costs and expenses of the Issuer, and (c) cover any stamp, issue, registration, documentary, transfer or other similar taxes and duties, including interest and penalties, payable by the Issuer in any jurisdiction in connection with the Intragroup Financing Agreements.

POWER OF ATTORNEY

The Issuer has pursuant to the Trust Deed granted an irrevocable power of attorney to the Trustee and its custodian, agent, delegate or nominee (each, an "**Appointee**") to, in such manner as the Trustee or the Appointee thinks fit, enforce the Issuer's rights under the Intragroup Financing Agreements and the Financing Guarantees on behalf of the Issuer in the event of (i) a Winding-Up of any Financing Recipient or the Parent; and/or (ii) any amount under any Intragroup Financing Agreement and/or any Financing Guarantee payable by any Financing Recipient or the Parent to the Issuer not being paid when due or (as the case may be) within any applicable grace period.

The Keepwell Deed and any non-contractual obligations arising out of or in connection with it, shall be governed by and construed in accordance with English law.

The Keepwell Deed does not constitute a guarantee by the Parent of the obligations of the Issuer under the Preference Shares and may not give rise to a debt claim in the event of any insolvency proceedings in relation to the Parent.

DESCRIPTION OF THE INTRAGROUP FINANCING AGREEMENTS AND THE FINANCING GUARANTEES

The following contains summaries of certain key provisions of the Intragroup Financing Agreements and the Financing Guarantees. Such statements do not purport to be complete and are qualified in their entirety by reference to the Intragroup Financing Agreements and the Financing Guarantees. Unless otherwise defined herein, defined terms used in this section shall have the meanings given to them in the Intragroup Financing Agreements and the Financing Guarantees.

THE INTRAGROUP FINANCING AGREEMENTS

The Issuer will enter into certain Intragroup Financing Agreements, each with the Parent and the relevant Financing Recipient on or around the Issue Date, pursuant to which the Issuer as the Financing Provider will, subject to, and in accordance with, the provisions of the Intragroup Financing Agreements, on-lend the entire gross proceeds from the issue of the Preference Shares to the Financing Recipients.

Status of each Financing

Payment obligation of each Financing Recipient under the relevant Intragroup Financing Agreement will constitute direct, unconditional, unsubordinated and unsecured obligations of the relevant Financing Recipient and ranks and shall rank *pari passu* with all other outstanding unsecured and unsubordinated obligations of the relevant Financing Recipient, present and future, but, in the event of insolvency, only to the extent permitted by applicable laws relating to creditors' rights.

Key Terms of each Financing

The arrangement of payment of principal amount and Distribution (as defined below) by each Financing Recipient will be similar to the Liquidation Preference and Dividend payment arrangement under the Preference Shares. Certain of the key terms of each Financing are as follows:

(i) Each Financing is perpetual and has no maturity date.

(ii) Subject to the Financing Recipient's right of deferral with respect to Distribution, each Financing confers the right to receive distribution ("**Distribution**") on a semi-annual basis on 9 May and 9 November in each year (each, a "**Distribution Payment Date**").

(iii) The rate of Distribution will initially be a rate not less than the Initial Dividend Rate (the "**Initial Distribution Rate**") and will be re-set to the Relevant Reset Distribution Rate (i) from, and including the First Reset Date, to, but excluding, the Reset Date falling immediately after the First Reset Date, and (ii) from, and including, each Reset Date thereafter to, but excluding, the immediately following Reset Date; where "**Relevant Reset Distribution Rate**" means the Distribution rate per annum (expressed as a percentage) representing the sum of (1) the 3-year US Treasury Rate in relation to that Reset Period, (2) the margin calculated based on the Initial Distribution Rate minus the benchmark rate for calculating the Dividend Margin and (3) 3.00 per cent. per annum.

(iv) The amounts payable by the Financing Recipient under the Intragroup Financing Agreements will at all times be sufficient to cover the Financing Provider's costs of funding and ensure that the Financing Provider has sufficient distributable reserves to meet its obligations under the Preference Shares and cover all fees, costs and expenses of the Financing Provider, including in respect of all administration and maintenance fees, costs and expenses of the Financing Provider, and cover any stamp, issue, registration, documentary, transfer or other similar taxes and duties, including interest and penalties, payable by the Financing Provider in any jurisdiction in connection with the relevant Intragroup Financing Agreement.

(v) The Financing Recipient may elect to defer any Distribution unless a Compulsory Distribution Payment Event has occurred. Distribution shall be deferred on a cumulative basis, on terms similar to the deferral of Dividends by the Issuer under the Preference Shares. A "**Compulsory Distribution Payment Event**" means circumstances in which during the three-month period ending on the day before the relevant scheduled Distribution Payment Date either or both of the following have occurred:

(a) the Financing Recipient has declared or paid any discretionary dividends or discretionary distributions or made any other discretionary payment, or has procured that such discretionary dividend, discretionary distributions or other discretionary payment is made, on any Parity Obligations or Junior Obligations of the Financing Recipient (except (a) in relation to Parity Obligations of the Financing Recipient, on a *pro rata* basis, or (b) in connection with any employee benefit plan or similar arrangements with or for the benefit of employees, officers, directors or consultants of the Financing Recipient); or

(b) the Financing Recipient has at its discretion redeemed, reduced, cancelled, bought-back or otherwise acquired for any consideration any Parity Obligations or Junior Obligations of the Financing Recipient prior to its stated maturity (except (a) in relation to Parity Obligations of the Financing Recipient, on a *pro rata* basis, (b) in connection with any employee benefit plan or similar arrangements with or for the benefit of employees, officers, directors or consultants of the Financing Recipient or (c) as a result of the exchange or conversion of the Financing Recipient's Parity Obligations for its Junior Obligations).

(vi) Each Financing contains a dividend stopper on terms similar to the dividend stopper in the Preference Shares. If, on any Distribution Payment Date, payment of Distribution scheduled to be made on such date is not made in full, the Financing Recipient and the Parent shall not:

(a) declare or pay any discretionary dividends or discretionary distributions or make any other discretionary payment, and will procure that no such discretionary dividends or discretionary distributions or other discretionary payment is made, on any Parity Obligations or Junior Obligations of the Financing Recipient or the Parent (except (a) in relation to Parity Obligations of the Financing Recipient or the Parent on a *pro rata* basis, or (b) in connection with any employee benefit plan or similar arrangements with or for the benefit of employees, officers, directors or consultants of the Financing Recipient or the Parent); or

(b) at its discretion redeem, reduce, cancel, buy back or otherwise acquire for any consideration any Parity Obligations or Junior Obligations of the Financing Recipient or the Parent prior to its stated maturity (except (a) in relation to Parity Obligations of the Financing Recipient or the Parent on a *pro rata* basis, (b) in connection with any employee benefit plan or similar arrangements with or for the benefit of employees, officers, directors or consultants of the Financing Recipient or the Parent or (c) as a result of the exchange or conversion of the Financing Recipient's or the Parent's Parity Obligations for its Junior Obligations,

in each case, unless and until the Financing Recipient has satisfied in full all outstanding Arrears of Distribution and Additional Distribution Amounts.

Redemption

Save for any redemption pursuant to the paragraphs below, each Financing Recipient shall not at any time prepay any part of each Financing.

- On 9 October 2024 (the "**First Call Date**") or on any Distribution Payment Date after the First Call Date (each, a "**Call Date**"), the Financing Recipient may, repay in whole but not in part the

Financing at its principal amount, together with any Distribution (including any Arrears of Distribution and any Additional Distribution Amounts) accrued but unpaid to but excluding the date fixed for repayment.

- If the Financing Provider intends to redeem the Preference Shares, the Financing Provider shall inform the Financing Recipient and the Financing Recipient may choose to (but has no obligation to) redeem in whole but not in part the Financing on any date prior to the date on which the Financing Provider intends to redeem the Preference Shares, together with any Distribution (including any Arrears of Distribution and any Additional Distribution Amounts) accrued but unpaid to but excluding the date fixed for redemption and notify the Financing Provider of its decision within five payment business days.

Enforcement Events

The right of the Financing Provider to institute proceedings for Winding-Up of any Financing Recipient is limited to circumstances where payment in respect of any Financing has become due. If default is made by a Financing Recipient in the payment of any amount of the Financing or Distribution on the due date of payment thereof and such failure continues for a period of 14 days or more (each, an "**Enforcement Event**"), the Financing Provider may institute proceedings for the Winding-Up of the Financing Recipient and/or prove and/or claim in the Winding-Up of the Financing Recipient for such payment.

In the event of a Winding-Up of the Financing Recipient or the Parent (whether or not an Enforcement Event has occurred and is continuing), the Financing Provider may give written notice to the Financing Recipient declaring the principal amount of the Financing to be immediately due and payable, whereupon the principal amount of the Financing becomes immediately due and payable together with accrued but unpaid Distribution (including any Arrears of Distribution and any Additional Distribution Amounts) up to but excluding the date of actual payment without further action or formality.

Undertakings

Each of the Financing Provider, the Financing Recipients and the Parent will agree and acknowledge pursuant to each Intragroup Financing Agreement that:

- none of the Financing Provider, the Financing Recipients and the Parent may amend, supplement, vary or waive any provision of the Intragroup Financing Agreements, exercise any right to rescind, cancel or terminate the Intragroup Financing Agreements, transfer or assign any right under the Intragroup Financing Agreements or waive or consent to any breach or proposed breach of any provision of the Intragroup Financing Agreements, except for any such action by the Financing Provider that is not materially prejudicial to the interests of the Financing Provider and/or any class of shareholders of the Financing Provider;

- neither the Financing Provider nor the Parent may amend, supplement, vary or waive any provision of the Financing Guarantees, exercise any right to rescind, cancel or terminate the Financing Guarantees, transfer or assign any right under the Financing Guarantees or waive or consent to any breach or proposed breach of any provision of the Financing Guarantees, except for any such action by the Financing Provider that is not prejudicial to the interests of the Financing Provider and/or any class of shareholders of the Financing Provider;

- the Financing Provider has pursuant to the Trust Deed granted an irrevocable power of attorney to the Trustee and its Appointee to, in such manner as the Trustee or the Appointee thinks fit, enforce the Financing Provider's rights under the Intragroup Financing Agreements and the Financing

Guarantees on behalf of the Financing Provider in the event of (i) a Winding-Up of any Financing Recipient or the Parent; and/or (ii) any amount under any Intragroup Financing Agreement and/or any Financing Guarantee payable by any Financing Recipient or the Parent to the Financing Provider not being paid when due or (as the case may be) within any applicable grace period;

- any amounts received by the Financing Provider pursuant to the Intragroup Financing Agreements or the Financing Guarantees (other than any Surplus) shall not be used for any purposes other than payment to the holders of the Preference Shares or redemption of the Preference Shares or to cover all amounts referred to paragraph (iv) of "*Key Terms of each Financing*" above, including all stamp, issue, registration, documentary, transfer or other similar taxes and duties, including interest and penalties, payable by the Financing Party in any jurisdiction in connection with any Intragroup Financing Agreement; and

- the Financing Provider shall not consent to the exercise or claim of any right of set-off or counterclaim by any Financing Recipient or the Parent in respect of any amounts due and payable to the Financing Provider under the Intragroup Financing Agreements or the Financing Guarantees.

Governing Law

The Intragroup Financing Agreements and any non-contractual obligations arising out of or in connection with them, shall be governed by and construed in accordance with English law.

THE FINANCING GUARANTEES

The Parent will unconditionally and irrevocably guarantee the due payment of all sums expressed to be payable by the Financing Recipient to the Financing Provider from time to time under the Intragroup Financing Agreements subject to, and in accordance with, the provisions of the Financing Guarantees entered into between the Issuer and the Parent on or around the Issue Date in respect of each Financing.

Status of the Financing Guarantees

Each Financing Guarantee will constitute direct, unconditional, unsecured and unsubordinated obligations of the Parent, and the obligations of the Parent under each Financing Guarantee will, save for such exceptions as may be provided by applicable legislation, at all times rank *pari passu* with all the other present and future unsecured and unsubordinated obligations of the Parent.

Undertaking relating to SAFE Registration

The Parent will undertake in the Financing Guarantees that it will file or cause to be filed with SAFE the Financing Guarantee within the prescribed timeframe after execution of each Financing Guarantee in accordance with the Provisions on the Foreign Exchange Administration of Cross-Border Guarantees (跨境擔保外匯管理規定) promulgated by SAFE on 12 May 2014 which came into effect on 1 June 2014 (the "**Cross-Border Security Registration**"). The Parent shall use all reasonable endeavours to complete or procure to be completed the Cross-Border Security Registration in respect of each Financing Guarantee and obtain a registration certificate from SAFE (or any other document evidencing the completion of registration issued by SAFE) in respect of each Financing Guarantee on or before the Registration Deadline and shall comply with all applicable PRC laws and regulations in relation to the Financing Guarantees.

Governing Law

The Financing Guarantees and any non-contractual obligations arising out of or in connection with them, shall be governed by and construed in accordance with English law.

DESCRIPTION OF THE ARTICLES OF ASSOCIATION OF THE ISSUER

SUMMARY OF THE KEY PROVISIONS OF THE ARTICLES

Below is the summary of key provisions of the Articles, its purpose is to provide the investors with an overview on the Articles. The information contained in this summary is just brief information, and therefore, it does not contain any information which may be important to the prospective investors.

Priority of the Provisions Set out in the Schedule A

All provisions set out in the main body of the Articles shall be read in conjunction with and shall be subject to the Terms and Conditions of the Preference Shares which will be set out in the Schedule A to the Articles, which provide further details on the rights of Preference Shares. In the event of any difference between the provisions set out in the main body of the Articles and the provisions set out in the Terms and Conditions of the Preference Shares, the provisions set out in the Terms and Conditions of the Preference Shares shall prevail.

Ordinary Shares and Preference Shares

Subject as provided in the Articles ((including Schedule A)), the Issuer may allot and issue the Shares with the dividend, liquidation, redemption and voting rights set out in the Articles. The Directors may allot, issue, grant options over or otherwise dispose of Shares (including fractions of a share) to such persons, at such times and on such terms as they think proper.

All Ordinary Shares shall rank *pari passu* with each other in all respects. All Preference Shares shall rank *pari passu* with each other in all respects.

The Preference Shares shall rank senior to the Ordinary Shares with respect to the payment of Dividends and certain other matters as provided in the Articles.

The Preference Shares shall be issued at such issue price and on such dates as the Directors may determine.

No Preference Shares shall be issued unless the Issuer is in receipt of cleared funds in Dollars or other consideration of equivalent value as determined by the Directors for the issue price for such Preference Shares.

All Ordinary Shares and Preference Shares shall be issued fully paid as to their par value and any premium determined by the Directors at the time of issue and shall be non-assessable.

Register of Members

The Issuer shall maintain or cause to be maintained the Register of Members in accordance with the Statute.

Transfer of Shares

Registration of transfer of Preference Shares will be effected by or on behalf of the Issuer or the Registrar but upon payment (or the giving of such indemnity and/or security and/or pre-funding as the Issuer or the Registrar may require) by the relevant Preference Shareholder in respect of any taxes or other governmental, regulatory or administrative charges which may be charged in relation to such transfer.

The instrument of transfer of any Share shall be in writing and shall be executed by or on behalf of the transferor (and if the Directors so require, signed by or on behalf of the transferee) and shall be in any usual or common form in use in the Cayman Islands or in respect of the Preference Shares, in such form as is set out in the global certificate representing the Preference Shares (the "**Global Certificate**"). The transferor shall be deemed to remain the holder of a Share until the name of the transferee is entered in the Register of Members.

Redemption, Repurchase and Surrender of Shares

Subject to the provisions of the Statute and the other provisions in the Memorandum and the Articles, including Schedule A, the Issuer may issue Shares that are to be redeemed or are liable to be redeemed at the option of the Member or the Issuer. The redemption of such Shares shall be effected in such manner and upon such other terms as the Issuer may, by Special Resolution, determine before the issue of the Shares.

Subject to the provisions of the Statute and the other provisions in the Memorandum and the Articles, including Schedule A, the Issuer may purchase its own Shares (including any redeemable Shares) in such manner and on such other terms as the Directors may agree with the relevant Member.

The Preference Shares may be redeemed without consent from the Preference Shareholders in accordance with Schedule A.

The Issuer may make a payment in respect of the redemption or purchase of its own Shares in any manner permitted by the Statute, including out of any combination of the following: capital, its profits and (subject to Schedule A) the proceeds of a fresh issue of Shares.

The Directors may accept the surrender for no consideration of any fully paid Share.

Voting Rights Attaching to Ordinary Shares and Preference Shares

The Holders of the Ordinary Shares shall (in respect of such Ordinary Shares) have the right to receive notice of, attend at and vote as a member at any meeting of Shareholders of the Issuer, except for (and subject to the Statute) a class meeting of Preference Shareholders called in respect of Preference Shareholder Matter Resolution. Every Holder of an Ordinary Share present in person or by proxy at any such meeting shall on a show of hands be entitled to one vote and, on a poll, shall be entitled to one vote per Ordinary Share of which he is a Holder.

Except as provided under the Articles, including Schedule A, the holders of the Preference Shares shall have no right to receive notice of, attend at and vote as a Member at any meeting of the Issuer.

Variation of Rights of Shares

Subject to Schedule A in respect of a Preference Shareholder Matter Resolution, if at any time the share capital of the Issuer is divided into different classes of Shares, all or any of the rights attached to any class (unless otherwise provided by the terms of issue of the Shares of that class) may, whether or not the Issuer is being wound up, be varied without the consent of the holders of the issued Shares of that class where such variation is considered by the Directors not to have a material adverse effect upon such rights; otherwise, any such variation, subject to Schedule A in respect of a Preference Shareholder Matter Resolution, shall be made only with the consent in writing of the holders of not less than 90 per cent. of the issued Shares of that class, or with the approval of a resolution passed by a majority of not less than two thirds of the votes cast at a separate meeting of the holders of the Shares of that class. For the

avoidance of doubt, the Directors reserve the right, notwithstanding that any such variation may not have a material adverse effect, to obtain consent from the holders of Shares of the relevant class. To any such meeting all the provisions of the Articles relating to general meetings shall apply *mutatis mutandis*.

For the purposes of a separate class meeting, the Directors may treat two or more or all the classes of Shares as forming one class of Shares if the Directors consider that such class of Shares would be affected in the same way by the proposals under consideration, but in any other case shall treat them as separate classes of Shares.

The rights conferred upon the holders of the Shares of any class issued with preferred or other rights shall not, unless otherwise expressly provided by the terms of issue of the Shares of that class, be deemed to be varied by the creation or issue of further Shares ranking pari passu therewith.

Amendments of Memorandum and Articles of Association and Alteration of Capital

To the fullest extent permitted by the Statute but subject to Schedule A, the Issuer may by Ordinary Resolution do any of the following and amend its Memorandum for that purpose:

(a) increase its share capital by such sum as the Ordinary Resolution shall prescribe and with such rights, priorities and privileges annexed thereto, as the Issuer in general meeting may determine;

(b) consolidate and divide all or any of its share capital into Shares of larger amount than its existing Shares;

(c) convert all or any of its paid-up Shares into stock, and reconvert that stock into paid-up Shares of any denomination;

(d) by subdivision of its existing Shares or any of them divide the whole or any part of its share capital into Shares of smaller amount than is fixed by the Memorandum or into Shares without par value; and

(e) cancel any Shares that at the date of the passing of the Ordinary Resolution have not been taken or agreed to be taken by any person and diminish the amount of its share capital by the amount of the Shares so cancelled.

Subject to the provisions of the Statute and the provisions of the Articles as regards the matters to be dealt with by Ordinary Resolution or a Preference Shareholder Matter Resolution, including Schedule A, the Issuer may by Special Resolution:

(a) change its name;

(b) alter or add to the Articles;

(c) alter or add to the Memorandum with respect to any objects, powers or other matters specified therein; and

(d) reduce its share capital or any capital redemption reserve fund.

General Meetings

All general meetings other than annual general meetings shall be called extraordinary general meetings.

The Issuer may, but shall not (unless required by the Statute) be obliged to, in each year hold a general meeting as its annual general meeting, and shall specify the meeting as such in the notices calling it. Any annual general meeting shall be held at such time and place as the Directors shall appoint and if no other time and place is prescribed by them, it shall be held at the Registered Office on the second Wednesday in December of each year at ten o'clock in the morning. At these meetings the report of the Directors (if any) shall be presented.

The Directors may call general meetings, and subject to Schedule A, they shall on a Members' requisition forthwith proceed to convene an extraordinary general meeting of the Issuer.

A Members' requisition is a requisition of Members holding at the date of deposit of the requisition not less than ten per cent. in par value or Liquidation Preference (in the case of Preference Shares) of the issued Shares which as at that date carry the right to vote at general meetings of the Issuer.

The Members' requisition must state the objects of the meeting and must be signed by the requisitionists and deposited at the Registered Office, and may consist of several documents in like form each signed by one or more requisitionists.

If there are no Directors as at the date of the deposit of the Members' requisition or if the Directors do not within twenty-one days from the date of the deposit of the Members' requisition duly proceed to convene a general meeting to be held within a further twenty-one days, the requisitionists, or any of them representing more than one-half of the total voting rights of all of the requisitionists, may themselves convene a general meeting, but any meeting so convened shall be held no later than the day which falls three months after the expiration of the said twenty-one day period.

A general meeting convened as aforesaid by requisitionists shall be convened in the same manner as nearly as possible as that in which general meetings are to be convened by Directors.

Notice of General Meetings

At least 21 days of notice (exclusive of the day on which the notice is given and of the day of the meeting) shall be given of any general meeting. Every notice shall specify the place, the day and the time of the meeting and the general nature of the business to be conducted at the general meeting and shall be given in the manner hereinafter mentioned or in such other manner if any as may be prescribed by the Issuer, provided that a general meeting of the Issuer shall, whether or not the notice specified in Article 21.1 has been given and whether or not the provisions of the Articles regarding general meetings have been complied with, be deemed to have been duly convened if it is so agreed:

(a) in the case of an annual general meeting, by all of the Members entitled to attend and vote thereat; and

(b) in the case of an extraordinary general meeting, by not less than 50 per cent. in par value or the Liquidation Preference (in the case of Preference Shares) of the Shares.

To any class meeting called for the passing of a Preference Shareholder Matter Resolution except for as otherwise specified, all the provisions of the Articles relating to general meetings shall apply *mutatis mutandis*.

The accidental omission to give notice of a general meeting to, or the non receipt of notice of a general meeting by, any person entitled to receive such notice shall not invalidate the proceedings of that general meeting.

Proceedings at General Meetings

No business shall be transacted at any meeting of Shareholders unless a quorum is present.

(a) In the case of a separate class meeting called for the passing of a Preference Shareholder Matter Resolution, at least two Members being individuals present in person or by proxy or if a corporation or other non-natural person by its duly authorised representative or proxy, holding at least 50 per cent. of the aggregate par value or the Liquidation Preference (in the case of the Preference Shares) (as the case may be) of the relevant class of Shares shall be a quorum unless the Issuer has only one Member for any class of Shares entitled to vote at such class meeting in which case the quorum shall be that one holder of the relevant class of Shares present in person or by proxy or (in the case of a corporation or other non-natural person) by its duly authorised representative or proxy.

(b) In the case of a general meeting, at least two Members being individuals present in person or by proxy or if a corporation or other non-natural person by its duly authorised representative or proxy, holding at least 50 per cent. of the aggregate par value of the Ordinary Shares shall be a quorum unless the Issuer has only one holder of Ordinary Shares entitled to vote at such general meeting in which case the quorum shall be that one holder of Ordinary Shares presents in person or by proxy or (in the case of a corporation or other non-natural person) by its duly authorised representative or proxy.

(c) Notwithstanding the provisions of this Article 22.1, where the Preference Shares are represented by a Global Certificate, the registered holder of the Preference Shares represented by the Global Certificate shall (unless the Global Certificate represents only one Preference Share) be treated as two persons for the purposes of any quorum requirements in respect of a class meeting of Preference Shareholders.

Subject to Schedule A, a person may participate at a meeting of Shareholders by conference telephone or other communications equipment by means of which all the persons participating in the meeting can communicate with each other. Participation by a person in a meeting of Shareholders in this manner is treated as presence in person at that meeting.

If a quorum is not present within 15 minutes from the time initially fixed for the meeting, it shall, if convened upon a Members' requisition or if the Issuer agrees, be dissolved. In any other case it shall be adjourned until such date, not less than 14 nor more than 42 days later, at the time and place as the chairman may decide. If a quorum is not present within 15 minutes from the time fixed for a meeting so adjourned, the meeting shall be dissolved. At an adjourned meeting, the quorum shall be:

(a) In the case of a separate class meeting for the passing of a Preference Shareholder Matter Resolution, at least two Members being individuals present in person or by proxy or if a corporation or other non-natural person by its duly authorised representative or proxy, holding whatever the amount of the aggregate par value or Liquidation Preference (in the case of Preference Shares) (as the case may be) of the relevant class of Shares shall be a quorum unless the Issuer has only one Member entitled to vote at such class meeting in which case the quorum shall be that one holder of the relevant class of Shares present in person or by proxy or (in the case of a corporation or other non-natural person) by its duly authorised representative or proxy.

(b) In the case of a general meeting, at least two Members being individuals present in person or by proxy or if a corporation or other non-natural person by its duly authorised representative or proxy, holding whatever the amount of the aggregate par value of the Ordinary Shares shall be a quorum unless the Issuer has only one holder of Ordinary Shares entitled to vote at such general meeting in which case the quorum shall be that one holder of Ordinary Shares present in person or by proxy or (in the case of a corporation or other non-natural person) by its duly authorised representative or proxy.

(c) Notwithstanding the provisions of Article 22.3, where the Preference Shares are represented by a Global Certificate, the registered holder of the Preference Shares represented by the Global Certificate shall (unless the Global Certificate represents only one Preference Share) be treated as two persons for the purposes of any quorum requirements in respect of an adjourned class meeting of Preference Shareholders.

At least 10 days' notice (exclusive of the day on which the notice is given or deemed to be given and of the day of the adjourned meeting) of a meeting adjourned through want of a quorum shall be given in the same manner as for an original meeting and that notice shall state the quorum required at the adjourned meeting. No notice need, however, otherwise be given of an adjourned meeting.

In the case of a separate class meeting for the Preference Shareholders, the chairman of a meeting shall be such person as the Trustee may nominate in writing, but if no such nomination is made or if the person nominated is not present within 15 minutes from the time fixed for the meeting, the Members or agents present shall choose one of their number to be chairman, failing which the Directors may appoint a chairman. The chairman may but need not be a Member or their agent. The chairman of an adjourned meeting need not be the same person as the chairman of the original meeting.

In the case of a meeting of Ordinary Shareholders, the Directors may, at any time prior to the time appointed for the meeting to commence, appoint any person to act as chairman of such meeting of the Issuer or, if the Directors do not make any such appointment, the chairman, if any, of the board of Directors shall preside as chairman at such meeting. If there is no such chairman, or if he shall not be present within fifteen minutes after the time appointed for the meeting to commence, or is unwilling to act, the Directors present shall elect one of their number to be chairman of the meeting. If no Director is willing to act as chairman or if no Director is present within fifteen minutes after the time appointed for the meeting to commence, the Members present shall choose one of their number to be chairman of the meeting.

The chairman may, with the consent of a meeting at which a quorum is present (and shall if so directed by the meeting) adjourn the meeting from time to time and from place to place, but no business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place.

A resolution put to the vote of the meeting (including in the case of a separate class meeting) shall be decided on a show of hands unless before, or on the declaration of the result of, the show of hands, the chairman demands a poll, or the Trustee or any other Member or Members collectively present in person or by proxy (or in the case of a corporation or other non-natural person, by its duly authorised representative or proxy) holding at least two per cent. in par value or Liquidation Preference (in the case of Preference Shares) of the Shares giving a right to attend and vote at the meeting demand a poll.

Unless a poll is duly demanded and the demand is not withdrawn a declaration by the chairman that a resolution has been carried or carried unanimously, or by a particular majority, or lost or not carried by

a particular majority, an entry to that effect in the minutes of the proceedings of the meeting shall be conclusive evidence of that fact without proof of the number or proportion of the votes recorded in favour of or against such resolution.

The demand for a poll may be withdrawn.

Except on a poll demanded on the election of a chairman or on a question of adjournment, a poll shall be taken as the chairman directs, and the result of the poll shall be deemed to be the resolution of the general meeting at which the poll was demanded.

A poll demanded on the election of a chairman or on a question of adjournment shall be taken forthwith. A poll demanded on any other question shall be taken at such date, time and place as the chairman of the general meeting directs, and any business other than that upon which a poll has been demanded or is contingent thereon may proceed pending the taking of the poll.

In the case of an equality of votes, whether on a show of hands or on a poll, the chairman shall be entitled to a second or casting vote in addition to any other votes which he may have.

In the case of a separate class meeting for Preference Shareholders, the Preference Shareholders are able to exercise the right to speak at a Virtual Meeting when that person is in a position to communicate to all those attending the class meeting, during the class meeting, in accordance with the Trust Deed.

In the case of a separate class meeting for Preference Shareholders, the Preference Shareholders are able to exercise their right to vote at a Virtual Meeting when:

(a) that Preference Shareholder is able to vote, during the class meeting, on resolutions put to the vote at such class meeting; and

(b) that Preference Shareholder's vote can be taken into account in determining whether or not such resolutions are passed at the same time as the votes of all the other Preference Shareholders attending such class meeting.

A resolution of the Ordinary Shareholders (including a Special Resolution) in writing (in one or more counterparts) signed by or on behalf of all Ordinary Shareholders for the time being entitled to receive notice of and to attend and vote at general meetings (or, being corporations or other non-natural persons, signed by their duly authorised representatives) shall be as valid and effective as if the resolution had been passed at a general meeting of the Issuer duly convened and held.

A resolution of the Preference Shareholders in writing (in one or more counterparts) signed by the holders of not less than 66 per cent. of the aggregate Liquidation Preference of the Preference Shares outstanding (a "**Preference Shareholder Written Resolution**") shall be as valid and effective as if the resolution had been passed at a meeting of the Preference Shareholders duly convened and held.

For so long as the Preference Shares are represented by a Global Certificate, so long as the Global Certificate is held on behalf of Euroclear Bank SA/NV ("**Euroclear**") and Clearstream Banking S.A. ("**Clearsteam**") or any additional or alternative clearing system resolution selected by the Issuer and the Parent and approved in writing by the Trustee, the Principal Paying Agent and the Registrar (the "**relevant clearing system(s)**"), then where the terms of the proposed resolution have been notified to the Preference Shareholders through the relevant clearing system(s) and electronic consent is sought in accordance with the Trust Deed, approval of such resolution given by way of electronic consents communicated through

the electronic communications systems of the relevant clearing system(s) in accordance with their operating rules and procedures by or on behalf of the holders of not less than 66 per cent. of the aggregate Liquidation Preference of the Preference Shareholders outstanding shall be as valid and effective as a Preference Shareholder Written Resolution.

Votes of Members

Subject to any rights or restrictions attached to any Shares, on a show of hands every Member who (being an individual) is present in person or by proxy or, if a corporation or other non-natural person is present by its duly authorised representative or by proxy, shall have one vote and on a poll every Member present in any such manner shall have one vote for every Share of which he is the holder.

In the case of joint holders the vote of the senior holder who tenders a vote, whether in person or by proxy (or, in the case of a corporation or other non-natural person, by its duly authorised representative or proxy), shall be accepted to the exclusion of the votes of the other joint holders, and seniority shall be determined by the order in which the names of the holders stand in the Register of Members.

A Member of unsound mind, or in respect of whom an order has been made by any court, having jurisdiction in lunacy, may vote, whether on a show of hands or on a poll, by his committee, receiver, curator bonis, or other person on such Member's behalf appointed by that court, and any such committee, receiver, curator bonis or other person may vote by proxy.

No person shall be entitled to vote at any general meeting unless he is registered as a Member on the record date for such meeting nor unless all calls or other monies then payable by him in respect of Shares have been paid.

No objection shall be raised as to the qualification of any voter except at the general meeting or adjourned general meeting at which the vote objected to is given or tendered and every vote not disallowed at the meeting shall be valid. Any objection made in due time in accordance with Article 23.5 shall be referred to the chairman whose decision shall be final and conclusive.

On a poll or on a show of hands votes may be cast either personally or by proxy (or in the case of a corporation or other non-natural person by its duly authorised representative or proxy). A Member may appoint more than one proxy or the same proxy under one or more instruments to attend and vote at a meeting. Where a Member appoints more than one proxy the instrument of proxy shall state which proxy is entitled to vote on a show of hands and shall specify the number of Shares in respect of which each proxy is entitled to exercise the related votes.

On a poll, a Member holding more than one Share need not cast the votes in respect of his Shares in the same way on any resolution and therefore may vote a Share or some or all such Shares either for or against a resolution and/or abstain from voting a Share or some or all of the Shares and, subject to the terms of the instrument appointing him, a proxy appointed under one or more instruments may vote a Share or some or all of the Shares in respect of which he is appointed either for or against a resolution and/or abstain from voting a Share or some or all of the Shares in respect of which he is appointed.

Proxies

Subject to the provisions in the Trust Deed which are applicable to the Preference Shares, the instrument appointing a proxy shall be in writing in the English language and shall be executed under the hand of the appointor or of his attorney duly authorised in writing, or, if the appointor is a corporation or other non natural person, under its common seal or under the hand of its duly authorised representative. A proxy need not be a Member.

Subject to the provisions in the Trust Deed which are applicable to the Preference Shares, the Directors may, in the notice convening any meeting or adjourned meeting, or in an instrument of proxy sent out by the Issuer, specify the manner by which the instrument appointing a proxy shall be deposited and the place and the time (being not later than the time appointed for the commencement of the meeting or adjourned meeting to which the proxy relates) at which the instrument appointing a proxy shall be deposited. Subject to the provisions in the Trust Deed which are applicable to the Preference Shares, in the absence of any such direction from the Directors in the notice convening any meeting or adjourned meeting or in an instrument of proxy sent out by the Issuer, the instrument appointing a proxy shall be deposited physically at the Registered Office not less than 24 hours before the time appointed for the meeting or adjourned meeting to commence at which the person named in the instrument proposes to vote.

Subject to the provisions in the Trust Deed which are applicable to the Preference Shares, the chairman may in any event at his discretion declare that an instrument of proxy shall be deemed to have been duly deposited. Subject to the provisions in the Trust Deed which are applicable to the Preference Shares, an instrument of proxy that is not deposited in the manner permitted, or which has not been declared to have been duly deposited by the chairman, shall be invalid.

Subject to the provisions in the Trust Deed which are applicable to the Preference Shares, the instrument appointing a proxy may be in any usual or common form (or such other form as the Directors may approve) and may be expressed to be for a particular meeting or any adjournment thereof or generally until revoked. An instrument appointing a proxy shall be deemed to include the power to demand or join or concur in demanding a poll.

Subject to provisions in the Trust Deed which are applicable to the Preference Shares, votes given in accordance with the terms of an instrument of proxy shall be valid notwithstanding the previous death or insanity of the principal or revocation of the proxy or of the authority under which the proxy was executed, or the transfer of the Share in respect of which the proxy is given unless notice in writing of such death, insanity, revocation or transfer was received by the Issuer at the Registered Office before the commencement of the general meeting, or adjourned meeting at which it is sought to use the proxy.

Powers of Directors

Subject to the provisions of the Statute, the Memorandum and the Articles and to any directions given by Special Resolution, the business of the Issuer shall be managed by the Directors who may exercise all the powers of the Issuer. No alteration of the Memorandum or Articles and no such direction shall invalidate any prior act of the Directors which would have been valid if that alteration had not been made or that direction had not been given. A duly convened meeting of Directors at which a quorum is present may exercise all powers exercisable by the Directors.

All cheques, promissory notes, drafts, bills of exchange and other negotiable or transferable instruments and all receipts for monies paid to the Issuer shall be signed, drawn, accepted, endorsed or otherwise executed as the case may be in such manner as the Directors shall determine by resolution.

The Directors on behalf of the Issuer may pay a gratuity or pension or allowance on retirement to any Director who has held any other salaried office or place of profit with the Issuer or to his widow or dependants and may make contributions to any fund and pay premiums for the purchase or provision of any such gratuity, pension or allowance.

Subject to Schedule A, the Directors may exercise all the powers of the Issuer to borrow money and to mortgage or charge its undertaking, property and assets (present and future) and uncalled capital or any

part thereof and to issue debentures, debenture stock, mortgages, bonds and other such securities whether outright or as security for any debt, liability or obligation of the Issuer or of any third party.

Appointment and Removal of Directors

The Issuer may by Ordinary Resolution appoint any person to be a Director or may by Ordinary Resolution remove any Director.

The Directors may appoint any person to be a Director, either to fill a vacancy or as an additional Director provided that the appointment does not cause the number of Directors to exceed any number fixed by or in accordance with the Articles as the maximum number of Directors.

Proceedings of Directors

The quorum for the transaction of the business of the Directors may be fixed by the Directors, and unless so fixed shall be two if there are two or more Directors, and shall be one if there is only one Director. A person who holds office as an alternate Director shall, if his appointor is not present, be counted in the quorum. A Director who also acts as an alternate Director shall, if his appointor is not present, count twice towards the quorum.

Subject to the provisions of the Articles, the Directors may regulate their proceedings as they think fit. Questions arising at any meeting shall be decided by a majority of votes. In the case of an equality of votes, the chairman shall have a second or casting vote. A Director who is also an alternate Director shall be entitled in the absence of his appointor to a separate vote on behalf of his appointor in addition to his own vote.

A resolution in writing (in one or more counterparts) signed by all the Directors or all the members of a committee of the Directors or, in the case of a resolution in writing relating to the removal of any Director or the vacation of office by any Director, all of the Directors other than the Director who is the subject of such resolution (an alternate Director being entitled to sign such a resolution on behalf of his appointor and if such alternate Director is also a Director, being entitled to sign such resolution both on behalf of his appointor and in his capacity as a Director) shall be as valid and effectual as if it had been passed at a meeting of the Directors, or committee of Directors as the case may be, duly convened and held.

A Director or alternate Director may, or other officer of the Issuer on the direction of a Director or alternate Director shall, call a meeting of the Directors by at least two days' notice in writing to every Director and alternate Director which notice shall set forth the general nature of the business to be considered unless notice is waived by all the Directors (or their alternates) either at, before or after the meeting is held. To any such notice of a meeting of the Directors all the provisions of the Articles relating to the giving of notices by the Issuer to the Members shall apply *mutatis mutandis*.

The continuing Directors (or a sole continuing Director, as the case may be) may act notwithstanding any vacancy in their body, but if and so long as their number is reduced below the number fixed by or pursuant to the Articles as the necessary quorum of Directors the continuing Directors or Director may act for the purpose of increasing the number of Directors to be equal to such fixed number, or of summoning a general meeting of the Issuer, but for no other purpose.

The Directors may elect a chairman of their board and determine the period for which he is to hold office; but if no such chairman is elected, or if at any meeting the chairman is not present within five minutes after the time appointed for the meeting to commence, the Directors present may choose one of their number to be chairman of the meeting.

All acts done by any meeting of the Directors or of a committee of the Directors (including any person acting as an alternate Director) shall, notwithstanding that it is afterwards discovered that there was some defect in the appointment of any Director or alternate Director, and/or that they or any of them were disqualified, and/or had vacated their office and/or were not entitled to vote, be as valid as if every such person had been duly appointed and/or not disqualified to be a Director or alternate Director and/or had not vacated their office and/or had been entitled to vote, as the case may be.

A Director but not an alternate Director may be represented at any meetings of the board of Directors by a proxy appointed in writing by him. The proxy shall count towards the quorum and the vote of the proxy shall for all purposes be deemed to be that of the appointing Director.

Directors' Interests

A Director or alternate Director may hold any other office or place of profit under the Issuer (other than the office of Auditor) in conjunction with his office of Director for such period and on such terms as to remuneration and otherwise as the Directors may determine.

A Director or alternate Director may act by himself or by, through or on behalf of his firm in a professional capacity for the Issuer and he or his firm shall be entitled to remuneration for professional services as if he were not a Director or alternate Director.

A Director or alternate Director may be or become a director or other officer of or otherwise interested in any company promoted by the Issuer or in which the Issuer may be interested as a shareholder, a contracting party or otherwise, and no such Director or alternate Director shall be accountable to the Issuer for any remuneration or other benefits received by him as a director or officer of, or from his interest in, such other company.

No person shall be disqualified from the office of Director or alternate Director or prevented by such office from contracting with the Issuer, either as vendor, purchaser or otherwise, nor shall any such contract or any contract or transaction entered into by or on behalf of the Issuer in which any Director or alternate Director shall be in any way interested be or be liable to be avoided, nor shall any Director or alternate Director so contracting or being so interested be liable to account to the Issuer for any profit realised by or arising in connection with any such contract or transaction by reason of such Director or alternate Director holding office or of the fiduciary relationship thereby established. A Director (or his alternate Director in his absence) shall be at liberty to vote in respect of any contract or transaction in which he is interested provided that the nature of the interest of any Director or alternate Director in any such contract or transaction shall be disclosed by him at or prior to its consideration and any vote thereon.

A general notice that a Director or alternate Director is a shareholder, director, officer or employee of any specified firm or company and is to be regarded as interested in any transaction with such firm or company shall be sufficient disclosure for the purposes of voting on a resolution in respect of a contract or transaction in which he has an interest, and after such general notice it shall not be necessary to give special notice relating to any particular transaction.

Remuneration of Directors

The remuneration to be paid to the Directors, if any, shall be such remuneration as the Directors shall determine. The Directors shall also be entitled to be paid all travelling, hotel and other expenses properly incurred by them in connection with their attendance at meetings of Directors or committees of Directors, or general meetings of the Issuer, or separate meetings of the holders of any class of Shares or debentures

of the Issuer, or otherwise in connection with the business of the Issuer or the discharge of their duties as a Director, or to receive a fixed allowance in respect thereof as may be determined by the Directors, or a combination partly of one such method and partly the other.

The Directors may by resolution approve additional remuneration to any Director for any services which in the opinion of the Directors go beyond his ordinary routine work as a Director. Any fees paid to a Director who is also counsel, attorney or solicitor to the Issuer, or otherwise serves it in a professional capacity shall be in addition to his remuneration as a Director.

Dividends, Distributions and Reserve

Subject to the Statute and Article 40.1, including Schedule A, and except as otherwise provided by the rights attached to any Shares, the Directors may resolve to pay Dividends and other distributions on Shares in issue and authorise payment of the Dividends or other distributions out of the funds of the Issuer lawfully available therefor. A Dividend shall be deemed to be an interim Dividend unless the terms of the resolution pursuant to which the Directors resolve to pay such Dividend specifically state that such Dividend shall be a final Dividend. No Dividend or other distribution shall be paid except out of the realised or unrealised profits of the Issuer, out of the share premium account or as otherwise permitted by law.

Except as otherwise provided by the rights attached to any Shares and Schedule A, all Dividends and other distributions shall be paid according to the par value of the Shares that a Member holds. If any Share is issued on terms providing that it shall rank for Dividend as from a particular date, that Share shall rank for Dividend accordingly.

The Directors may deduct from any Dividend or other distribution payable to any Member all sums of money (if any) then payable by him to the Issuer on account of calls or otherwise.

The Directors may resolve that any Dividend or other distribution be paid wholly or partly by the distribution of specific assets and in particular (but without limitation) by the distribution of shares, debentures, or securities of any other company or in any one or more of such ways and where any difficulty arises in regard to such distribution, the Directors may settle the same as they think expedient and in particular may issue fractional Shares and may fix the value for distribution of such specific assets or any part thereof and may determine that cash payments shall be made to any Members upon the basis of the value so fixed in order to adjust the rights of all Members and may vest any such specific assets in trustees in such manner as may seem expedient to the Directors.

Except as otherwise provided by the rights attached to any Shares, Dividends and other distributions may be paid in any currency. The Directors may determine the basis of conversion for any currency conversions that may be required and how any costs involved are to be met.

The Directors may, before resolving to pay any Dividend or other distribution, set aside such sums as they think proper as a reserve or reserves which shall, at the discretion of the Directors, be applicable for any purpose of the Issuer and pending such application may, at the discretion of the Directors, be employed in the business of the Issuer.

Any Dividend, other distribution, interest or other monies payable in cash in respect of Shares may be paid by wire transfer to the holder or by cheque or warrant sent through the post directed to the registered address of the holder or, in the case of joint holders, to the registered address of the holder who is first named on the Register of Members or to such person and to such address as such holder or joint holders

may in writing direct. Every such cheque or warrant shall be made payable to the order of the person to whom it is sent. Any one of two or more joint holders may give effectual receipts for any Dividends, other distributions, bonuses, or other monies payable in respect of the Share held by them as joint holders.

Subject to Schedule A, no Dividend or other distribution shall bear interest against the Issuer.

Any Dividend or other distribution which cannot be paid to a Member and/or which remains unclaimed after six months from the date on which such Dividend or other distribution becomes payable may, in the discretion of the Directors, be paid into a separate account in the Issuer's name, provided that the Issuer shall not be constituted as a trustee in respect of that account and the Dividend or other distribution shall remain as a debt due to the Member. Any Dividend or other distribution which remains unclaimed after a period of five years from the date on which such Dividend or other distribution becomes payable or any Liquidation Preference which remains unclaimed after a period of 10 years from the date on which such Liquidation Preference becomes payable, shall be forfeited and shall revert to the Issuer.

Capitalisation

The Directors may at any time capitalise any sum standing to the credit of any of the Issuer's reserve accounts or funds (including the share premium account and capital redemption reserve fund) or any sum standing to the credit of the profit and loss account or otherwise available for distribution; appropriate such sum to Members in the proportions in which such sum would have been divisible amongst such Members had the same been a distribution of profits by way of Dividend or other distribution; and apply such sum on their behalf in paying up in full unissued Shares for allotment and distribution credited as fully paid-up to and amongst them in the proportion aforesaid. In such event the Directors shall do all acts and things required to give effect to such capitalisation, with full power given to the Directors to make such provisions as they think fit in the case of Shares becoming distributable in fractions (including provisions whereby the benefit of fractional entitlements accrue to the Issuer rather than to the Members concerned). The Directors may authorise any person to enter on behalf of all of the Members interested into an agreement with the Issuer providing for such capitalisation and matters incidental or relating thereto and any agreement made under such authority shall be effective and binding on all such Members and the Issuer.

Books of Account

The Directors shall cause proper books of account (including, where applicable, material underlying documentation including contracts and invoices) to be kept with respect to all sums of money received and expended by the Issuer and the matters in respect of which the receipt or expenditure takes place, all sales and purchases of goods by the Issuer and the assets and liabilities of the Issuer. Such books of account must be retained for a minimum period of five years from the date on which they are prepared. Proper books shall not be deemed to be kept if there are not kept such books of account as are necessary to give a true and fair view of the state of the Issuer's affairs and to explain its transactions.

The Directors shall determine (including with reference to the Trust Deed) whether and to what extent and at what times and places and under what conditions or regulations the accounts and books of the Issuer or any of them shall be open to the inspection of Members and the Trustee, including any custodian, agent, delegate or nominee, not being Directors and no Member and the Trustee, including any custodian, agent, delegate or nominee (not being a Director) shall have any right of inspecting any account or book or document of the Issuer except as conferred by Statute or authorised by the Directors or by the Issuer in general meeting or except as provided in the Trust Deed.

The Directors may cause to be prepared and to be laid before the Issuer in general meeting profit and loss accounts, balance sheets, group accounts (if any) and such other reports and accounts as may be required by law.

Notices

Subject to Article 44.5, notices shall be in writing and may be given by the Issuer to any Member either personally or by sending it by courier, post, cable, telex, fax or e-mail to him or to his address as shown in the Register of Members (or where the notice is given by e-mail by sending it to the e-mail address provided by such Member). Any notice, if posted from one country to another, is to be sent by airmail.

Where the Preference Shares are represented by a Global Certificate, so long as the Global Certificate is held on behalf of Euroclear and Clearstream, any notice to the Preference Shareholders shall be validly given by the delivery of the relevant notice to Euroclear and Clearstream for communication by the relevant clearing system to entitled accountholders in substitution for notification as required by Articles 44.1 to 44.4 and shall be deemed to have been given on the date of delivery to such clearing system.

Winding Up

If the Issuer shall be wound up the liquidator shall apply the assets of the Issuer in satisfaction of creditors' claims in such manner and order as such liquidator thinks fit. Subject to Schedule A and the rights attaching to any Shares, in a winding up:

(d) if the assets available for distribution amongst the Members shall be insufficient to repay the whole of the Issuer's issued share capital, such assets shall be distributed so that, as nearly as may be, the losses shall be borne by the Members in proportion to their claims and ranking and the par value of the Shares held by them; or

(e) if the assets available for distribution amongst the Members shall be more than sufficient to repay the whole of the Issuer's issued share capital at the commencement of the winding up, the surplus shall be distributed amongst the Ordinary Shareholders in proportion to the par value of the Ordinary Shares held by them at the commencement of the winding up subject to a deduction from those Ordinary Shares in respect of which there are monies due, of all monies payable to the Issuer for unpaid calls or otherwise.

If the Issuer shall be wound up the liquidator may, subject to the rights attaching to any Shares (including the rights attaching to the Preference Shares stated in Schedule A) and with the approval of a Special Resolution of the Issuer (save that if Winding-Up proceedings are instituted pursuant to the terms of the Preference Shares, approval by a Special Resolution of the Issuer shall not be required) and any other approval required by the Statute, divide amongst the Members in kind the whole or any part of the assets of the Issuer (whether such assets shall consist of property of the same kind or not) and may for that purpose value any assets and determine how the division shall be carried out as between the Members or different classes of Members. The liquidator may, with the like approval, vest the whole or any part of such assets in trustees upon such trusts for the benefit of the Members as the liquidator, with the like approval, shall think fit, but so that no Member shall be compelled to accept any asset upon which there is a liability.

Indemnity and Insurance

Every Director and officer of the Issuer (which for the avoidance of doubt, shall not include auditors of the Issuer), together with every former Director and former officer of the Issuer (each an "**Indemnified Person**") shall be indemnified out of the assets of the Issuer against any liability, action, proceeding, claim, demand, costs, damages or expenses, including legal expenses, whatsoever which they or any of them may incur as a result of any act or failure to act in carrying out their functions other than such liability (if any) that they may incur by reason of their own actual fraud or wilful default. No Indemnified

Person shall be liable to the Issuer for any loss or damage incurred by the Issuer as a result (whether direct or indirect) of the carrying out of their functions unless that liability arises through the actual fraud or wilful default of such Indemnified Person. No person shall be found to have committed actual fraud or wilful default under Article 46.1 unless or until a court of competent jurisdiction shall have made a finding to that effect.

The Issuer shall advance to each Indemnified Person reasonable attorneys' fees and other costs and expenses incurred in connection with the defence of any action, suit, proceeding or investigation involving such Indemnified Person for which indemnity will or could be sought. In connection with any advance of any expenses hereunder, the Indemnified Person shall execute an undertaking to repay the advanced amount to the Issuer if it shall be determined by final judgment or other final adjudication that such Indemnified Person was not entitled to indemnification pursuant to Article 46.2. If it shall be determined by a final judgment or other final adjudication that such Indemnified Person was not entitled to indemnification with respect to such judgment, costs or expenses, then such party shall not be indemnified with respect to such judgment, costs or expenses and any advancement shall be returned to the Issuer (without interest) by the Indemnified Person.

The Directors, on behalf of the Issuer, may purchase and maintain insurance for the benefit of any Director or other officer of the Issuer against any liability which, by virtue of any rule of law, would otherwise attach to such person in respect of any negligence, default, breach of duty or breach of trust of which such person may be guilty in relation to the Issuer.

Mergers and Consolidations

Subject to Schedule A, the Issuer shall have the power to merge or consolidate with one or more other constituent companies (as defined in the Statute) upon such terms as the Directors may determine and (to the extent required by the Statute) with the approval of a Special Resolution.

For the purposes of the Articles:

"**Articles**"	means these amended and restated articles of association of the Issuer, including Schedule A attached hereto, as originally formed or as from time to time altered by Special Resolutions.
"**Agency Agreement**"	means the agency agreement entered into by the Issuer, the Trustee (as defined below) and China Construction Bank (Asia) Corporation Limited (中國建設銀行(亞洲)股份有限公司) as principal paying agent, calculation agent, transfer agent and registrar (as amended, restated, replaced and/or supplemented from time to time) dated 9 November 2021.
"**Auditor**"	means the person for the time being performing the duties of auditor of the Issuer (if any).
"**Directors**"	means the directors for the time being of the Issuer.
"**Dividend**"	in respect of the Ordinary Shares, means any dividend (whether interim or final) resolved to be paid on the Ordinary Shares pursuant to the Article and in respect of the Preference Shares, has the same meaning in the Schedule A.

"**Liquidation Preference**"	in respect of each Preference Share means U.S.$1,000.
"**Member**" or "**Shareholder**".	means any holder of the issued and outstanding Shares of any class (which shall include the Ordinary Shareholders and the Preference Shareholders).
"**Memorandum**"	means the Amended and Restated Memorandum of Association of the Issuer, as originally formed or as from time to time altered by Special Resolutions.
"**Ordinary Resolution**"	means a resolution passed by a simple majority of the Members as, being entitled to do so, vote in person or, where proxies are allowed, by proxy at a general meeting, and includes a unanimous written resolution. In computing the majority when a poll is demanded regard shall be had to the number of votes to which each Member is entitled by the Articles.
"**Ordinary Share**"	means an ordinary share in the capital of the Issuer of U.S.$1.00 par value with the rights set out in the Articles.
"**Ordinary Shareholder**"	means the holder(s) of Ordinary Shares whose name(s) are entered in the Register of Members as the holder of such Ordinary Shares.
"**Preference Share**"	means a preference share in the capital of the Issuer of U.S.$0.01 par value with the rights set out in the Articles.
"**Preference Shareholder**".	means the holder(s) of Preference Shares whose name(s) are entered in the Register of Members as the holder of such Preference Shares.
"**Preference Shareholder Matter Resolution**".	has the meaning given to it in Schedule A.
"**Register of Members**"	means the register of Members (including holders of any class of Shares) maintained in accordance with the Statute and includes (except where otherwise stated) any branch or duplicate register of Members.
"**Registered Office**"	means the registered office for the time being of the Issuer.
"**Share**"	means a share in the Issuer of any class (which shall include Ordinary Shares, Preference Shares or any other class of shares) and includes a fraction of a share of any class in the Issuer.
"**Share Registrar**"	means China Construction Bank (Asia) Corporation Limited (中國建設銀行(亞洲)股份有限公司).
"**Special Resolution**"	has the same meaning as in the Statute, and includes a unanimous written resolution.

"**Statute**"	means the Companies Act (As Revised) of the Cayman Islands.
"**Trust Deed**"	means the trust deed entered into by the Issuer and China Construction Bank (Asia) Corporation Limited (中國建設銀行(亞洲)股份有限公司) (the "**Trustee**", which expression shall, whenever the context so admits, include all persons for the time being the trustee or trustees under the Trust Deed) as trustee for itself and the Preference Shareholders (as amended, restated, replaced and/or supplemented from time to time) dated 9 November 2021.
"**Virtual Meeting**"	means any separate class meeting for Preference Shareholders held via an electronic platform.
"**24 hours**"	means a period of 24 hours including all or part of a day (disregarding for this purpose the day upon which such meeting is to be held) upon which banks are open for business in both the place where the relevant meeting is to be held and in each of the places where the Principal Paying Agent (as defined in Schedule A) has its specified office and such period shall be extended by one period or, to the extent necessary, more periods of 24 hours until there is included as aforesaid all or part of a day upon which banks are open for business as aforesaid.

USE OF PROCEEDS

The Issuer intends to on-lend the entire gross proceeds from the offering to the Financing Recipients pursuant to the Intragroup Financing Agreements for the refinancing of existing indebtedness.

CAPITALISATION AND INDEBTEDNESS

The following table sets forth the actual consolidated debt and capitalisation of the Group as at 31 December 2020 and as adjusted to give effect to the issue of the Preference Shares.

	As at 31 December 2020			
	Actual		As adjusted	
	(RMB in millions)	(U.S.$[(2)] in millions)	(RMB in millions)	(U.S.$[(2)] in millions)
Bank and other borrowings (current portion)				
Short-term borrowings	146,604.4	22,468.1	146,604.4	22,468.1
Long-term borrowings due within one year	53,173.0	8,149.1	53,173.0	8,149.1
Bonds payable due within one year	33,740.0	5,170.9	33,740.0	5,170.9
	233,517.4	**35,788.1**	**233,517.4**	**35,788.1**
Bank and other borrowings (non-current portion)				
Long-term borrowings	376,863.3	57,756.8	376,863.3	57,756.8
Bonds payable	95,645.6	14,658.3	95,645.6	14,658.3
	472,508.9	**72,415.2**	**472,508.9**	**72,415.2**
Total owner's equity before issuance of Preference Shares	**351,192.2**	**53,822.6**	**351,192.2**	**53,822.6**
Preference Shares to be issued	–	–	5,872.5	900.0
Total capitalisation[(1)]	**823,701.1**	**126,237.7**	**829,573.5**	**127,137.7**

(1) Total capitalisation is equal to the sum of bank and other borrowings (non-current portion) and total owner's equity.

(2) Translation of RMB amounts to U.S. dollars and, as the case may be, U.S. dollar amounts to RMB was made at a rate of RMB6.5250 to U.S.$1.00, the exchange rate as at 31 December 2020 as set forth in the H.10 weekly statistical release of the of the Federal Reserve Board of the Federal Reserve Bank of New York.

The Group's short-term borrowings and long-terms borrowings increased to RMB159,159.0 million and RMB496,063.6 million as at 30 June 2021 and both further increased in the third quarter of 2021.

Except as otherwise disclosed above, there has been no material adverse change in the Group's capitalisation and indebtedness since 31 December 2020.

DESCRIPTION OF THE ISSUER

FORMATION

The Issuer is an exempted company with limited liability incorporated under the Companies Act (As Revised) of the Cayman Islands. It was incorporated in the Cayman Islands on 21 July, 2021. Its registered office is at PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands. The Issuer is a wholly-owned subsidiary of the Company.

BUSINESS ACTIVITY

The Issuer was established with unrestricted objects and powers as set out in its memorandum of association. The Issuer does not sell any products or provide any services and it has undertaken no business activities since its date of incorporation, other than those incidental to its incorporation and establishment as a wholly-owned subsidiary of the Company and those incidental to the issuance of the Preference Shares.

In addition, pursuant to the Terms and Conditions of the Preference Shares, the Issuer shall not carry on any business activity or incur or have outstanding any indebtedness for moneys borrowed or raised (whether senior or subordinated), other than borrowing activities and activities in connection with the issue of the Preference Shares or the entering into each Financing and the Financing Guarantees and any other activities reasonably incidental thereto and the entry into any shareholders' loan that ranks or is expressed to rank, by their terms or by operation of law, in right of payment behind the claims of the Preference Shareholders.

FINANCIAL STATEMENTS

Under Cayman Islands law, the Issuer is not required to publish interim or annual financial statements. The Issuer has not published, and does not propose to publish, any financial statements. The Issuer is, however, required to keep proper books of account as are necessary to give a true and fair view of the state of the Issuer's affairs and to explain its transactions.

DIRECTORS AND OFFICERS

The sole director of the Issuer is Binbin Tang. Such sole director's business addresses is at Building No.3, No. 28 Yuan, Jin Rong Da Jie, Xicheng District, Beijing, China. The sole director of the Issuer does not hold any shares or options to acquire shares of the Issuer. The Issuer does not have any employees and has no subsidiaries.

DESCRIPTION OF THE GROUP

OVERVIEW

As a large integrated energy conglomerate, the Group is one of the top five power generation groups in China (being China Huaneng Group Corporation, China Datang Corporation, China Huadian Corporation, China Energy Investment Group, and the Group, collectively the "**top five power groups**") and is the first one with qualifications to hold, develop, construct and operate nuclear power plants among the top five power groups in China. The Group is currently one of the three nuclear development and construction operators in the PRC. The Group has diversified power assets across thermal power, nuclear power, hydropower, wind power, PV power and other non-nuclear clean energies. The Group is also the largest PV power generation group and the second largest wind power generation group worldwide and is also ranked number one in its proportion of clean energy production among the top five power groups as at 31 December 2020. The Group ranked 293rd among the Fortune Global 500 in 2021, having been listed in the Fortune Global 500 for ten consecutive years, with its businesses covering 46 countries and regions. The Group is the leading enterprise for two National Science and Technology Major Projects, namely the large advanced Pressurised Water Reactor nuclear power plant and the heavy-duty gas turbine project, and is the leading group for establishing the Energy Industry Internet.

At the end of 2018, the Group is also a pilot state capital investment enterprise. State capital investment enterprise is a comprehensive reform pilot, covering various aspects of reforms of state-owned enterprises and state-owned assets. Pilot enterprise can take the lead in terms of authorisation and decentralisation, organisational structure, and business models, so as to better release reform dividends and stimulate development vitality. In the future, the Company aims to further (i) optimise the industrial layout, improve the operating mechanism and innovate the development model, (ii) strengthen the functions of the group headquarters in strategic leadership, capital operation, risk control and compliance, audit and supervision, and comprehensively enhance the group's management and control capabilities, and (iii) enhance the motivation and vitality of high-quality development, improve resource allocation efficiency and international management level in open cooperation, and make every effort to promote the construction of a world-class clean energy enterprise with global competitiveness.

Apart from its power generation business, the Group also has ancillary businesses such as heating, coal and aluminium which integrate with the power generation business synergistically. The Group designs, develops, manages and operates power plants, and sells the electricity generated by its power plants to local grid companies. As at 31 December 2018, 2019 and 2020 and 30 June 2021, the Group's total controllable installed capacity was 140.2 GW, 150.9 GW, 176.3 GW and 182.2 GW, respectively. As at 31 December 2018, 2019 and 2020 and 30 June 2021, the Group's total controllable installed capacity of clean and low carbon energy represented, 48.9 per cent., 50.5 per cent, 56.1 per cent. and 57.5 per cent. of its total controllable installed capacity.

The Group was formed pursuant to the merger between CPI and State Nuclear Power Technology Corporation ("**SNPTC**"), whereby SNPTC was consolidated into CPI and became a subsidiary of CPI (the "**Merger**"). CPI was established in 2002 through the reorganisation of the former State Power Corporation of China under the reform of China's power system. CPI was one of the five largest power generation companies in China and was one of the three major operators of nuclear power investment projects, with strong assets and qualifications and the resources to operate nuclear power projects. SNPTC was established in 2007. It was the key entity to implementing China's self-developed third-generation nuclear power technology, and the leading unit in executing major nuclear science and technology projects in China, with strong research and development capabilities in both nuclear and related conventional power areas. In May 2015, SNPTC merged into CPI and was renamed as State Power Investment Corporation. The Merger has integrated the advantages of CPI and SNPTC on operation and technology innovation through realising the optimisation of resources across the upstream and downstream industry chain, and promoting automation and industrialisation development of third-generation nuclear power technology. On

29 December 2017, the Company was restructured as a wholly state-owned limited company and renamed as State Power Investment Corporation Limited. In 2020, the Company has 61 secondary subsidiary entities, including five listed in China's mainland, one listed on the Hong Kong Stock Exchange and two in the National Equities Exchange and Quotations (NEEQ).

In line with its internationalisation strategy, the Group is actively expanding in the overseas power generation market, aiming to become an international energy conglomerate providing services across the globe. The Group's overseas projects are located in 46 countries and regions including Australia, Brazil, India, Malta, South Africa, Turkey, Japan and Pakistan. For example, in 2017, the Company's subsidiary UHE São Simão Energia S.A. ("**UHE São Simão**") won the bid for the 30-year concession right of the São Simão Hydropower Station in Brazil with total controllable installed capacity of 1,710 MW. The Group believes that its comprehensive capabilities in the development and management process of power projects enable it to compete in its selected international markets.

As at 31 December 2020, the Company had registered capital of RMB35 billion and the Group had total assets of RMB1,324.1 billion. For the three years ended 31 December 2018, 2019 and 2020, the Group recorded revenue of RMB226.4 billion, RMB272.2 billion and RMB278.2 billion, respectively, and net profit of RMB6.7 billion, RMB10.5 billion and RMB13.8 billion, respectively.

CORPORATE HISTORY AND STRUCTURE

The following are certain historical and legacy milestones before the merger of SNPTC into CPI which formed the Company.

Certain Historical Highlights

1958	Shandong Electric Power Engineering Consulting Institute Corp., Ltd. was capable of electric power explore, design and construction.
1970	Shanghai Nuclear Engineering Research & Design Institute independently designed and developed the first nuclear power plant in Mainland China.
1970	Yaomeng Power Plant owned the first domestic power generating unit with the controllable installed capacity of 300 MW in the PRC.
1984	Pingwei Power Plant owned the first domestic power generating unit with the controllable installed capacity of 600 MW in the PRC.

Business Milestones in the History of the Group

29 December 2002	The former State Power Corporation of China was split and reorganised into five power groups, including CPI, in China's electricity system reform. Former State Power Corporation of China's nuclear assets were fully injected into CPI, with registered capital of RMB12 billion.
2005	The PRC Government began the qualification evaluation process for CPI as the country's third nuclear construction operator; CPI obtained China's third nuclear project operations licence in 2007.

2 November 2006	SNPTC was to be established to develop third-generation nuclear technology, with four generating sets to be jointly constructed by China and the United States and located in Sanmen county in Zhejiang province and Haiyang city in Shandong province.
22 May 2007	SNPTC was formally established as the key carrier, R&D platform and implementation unit for third-generation nuclear technology.
2012	CPI entered the Fortune Global 500 list for the first time, ranking No. 451 with revenue of U.S.$24.4 billion.
9 January 2014	National Energy Administration held a CAP1400 preliminary design review meeting in Beijing at which the CAP1400 preliminary design developed by SNPTC passed review.
12 May 2015	SASAC approved the merger of SNPTC into CPI.
15 July 2015	SPIC was formally established in Beijing.
28 January 2016	SPIC's acquisition of Pacific Hydro Pty Ltd. was completed in Melbourne. It officially gained control of Pacific Hydro Pty Ltd, which will act as one of SPIC's offshore platform for international business.
27 April 2016	CAP1400 passed the IAEA general reactor security review.
22 May 2016	Launched the operation for all four reactor coolant pumps of Sanmen No. 1, a third-generation nuclear project and the world's first AP1000 generating set.
2017	AP1000 passed the inspection of the Office for Nuclear Regulation of United Kingdom.
2017	The first hydraulic test of the first CAP1000 reactor pressure vessel was a success.
2017	Release of the "NuPAC" platform with completely independent intellectual property rights.
August 2017	The ground-mounted PV power station with the controllable installed capacity of 100 MW of the Qinghai Hainan Tibetan Autonomous Prefecture Solar Energy Ecological Power Generation Industrial Park of our subsidiary, Huanghe Hydropower Development Co., Ltd., connected to the grid. The total controllable installed capacity of the PV power stations in operation of the Company had reached 10.02 GW, continuing to rank No. 1 in the world.

10 November 2017	The Company's subsidiary UHE São Simão entered into a concession agreement for the operation of the São Simão Hydropower Station in Brazil for a period of 30 years.
29 December 2017	The Company was restructured as a wholly state-owned limited company and renamed as State Power Investment Corporation Limited.
2017	SPIC entered the Fortune Global 500 list for six consecutive years (including previously as CPI) and ranked No. 368 in 2017.
2017	As at and for the year ended 31 December 2017, the Group's assets and revenue exceeded RMB1 trillion and RMB200 billion, respectively.
June-August 2018	Haiyang No. 1, an AP1000 generating unit, began fuelling on 21 June 2018, and achieved first capacity of Pressurised Water Reactor ("**PWR**") on 8 August 2018, followed by the steam turbine, reaching its speed for the first time on 14 August 2018, and then connected to the grid on 17 August 2018. Haiyang No. 2, an AP1000 generating unit, began fuelling on 8 August 2018.
June 2018	Sanmen No. 1, the world's first AP1000 generating unit, successfully connected to the grid for the first time, meeting all the technical indicators under the design requirements.
July 2018	Founded the first Nuclear Heating Industry Alliance in the PRC.
October 2018	Haiyang No. 1, an AP1000 generating unit, completed the full power operation of 168 hours and fulfilled the conditions to commence commercial operation.
January 2019	Haiyang No. 2, an AP1000 generating unit, was the first unit fulfilled the conditions to commence commercial operation in 2019 in the PRC, which represented the commencement of full operation of Shandong Haiyang Nuclear Power Project Phase I.
July 2019	The Energy Storage Technology Research Centre of the Company was established.
May 2019	The total controllable installed capacity of the Group's clean energy projects for the first time exceeded 50 per cent. of its total controllable installed capacity, ranking No. 1 among the top five power groups in the PRC.
2020	CAP1400 was released with independent intellectual property rights, and the CAP1400 project has been moving forward with solid progress.

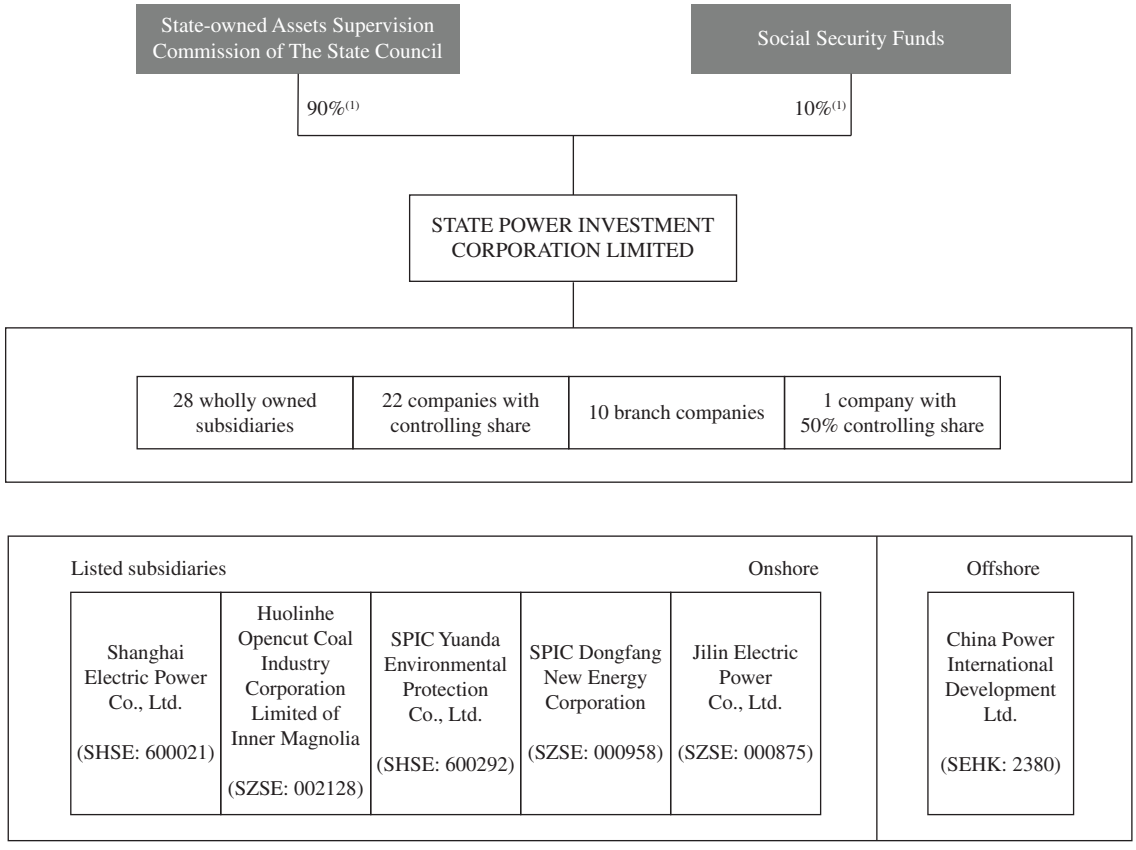
The total controllable installed capacity of the Group's clean energy projects reached 56 per cent. of its total controllable installed capacity, ranking No. 1 worldwide, and the Group announced the planned timeline for achieving the peaking of carbon dioxide emissions.

The new energy power generation project with 4.05 GW capacity in Hainan Tibetan Autonomous Prefecture of Qinghai was completed and connected to the grid, the project was the largest power plant with only one round of investment and also has the shortest construction time in the world.

PV power battery conversion rate exceeded 24.5 per cent., the technology is in the leading position internationally.

Corporate Structure

As at 31 December 2020, the Company had 61 secondary subsidiaries spanning 31 provinces in the PRC and overseas, including eight listed and quoted subsidiaries, of which two subsidiaries are listed on the Shanghai Stock Exchange, three subsidiaries are listed on the Shenzhen Stock Exchange, one subsidiary is listed on the Hong Kong Stock Exchange and two subsidiaries are listed on National Equities Exchange and Quotations. The following chart sets forth the simplified structure of the Company and its principal subsidiaries as at 31 December 2020[1]:



(1) On 10 September 2019, 10 per cent. of the capital of the Company owned by the SASAC has been transferred to the Social Security Funds. Around the date of this Offering Circular, the filing for the transfer of the 10 per cent. shares of the Company with the Administration for Industry and Commerce of the People's Republic of China has not been completed.

STRENGTHS

The Group believes that its leading position in the power industry is underpinned by the following principal strengths:

Steady industry leadership, focus on clean energy development and comprehensive diversified power structure advantages

The Group is a leading integrated energy conglomerate in China. By the end of 2020, the Group's total controllable installed capacity reached 176.3 GW, representing 8.01 per cent of the total installed capacity of the Chinese power industry. The Group's total controllable installed capacity reached 182.2 GW as at 30 June 2021. In 2020, the Group's annual power generation reached 580.0 billion KWh, accounting for 7.61 per cent. of the total amount of the Chinese power industry. The Group has also entered the Fortune Global 500 list for ten consecutive years (including previously as CPI) from 2012 to 2021. As at 30 June 2021, the newly installed PV power generators has the capacity of 3.65 GW. The Group promotes energy green revolution, focuses on power and clean energy by integrating ecological civilisation into corporate development, and ensuring safety and environmental protection while developing clean energy.

The Group has diversified energy sources, which mitigate the impact of differentiating the on-grid price based on energy type brought about by power reform. The Group's unique capacity of its electricity research institute enables continual improvement in operational efficiency through proprietary technical capacity and develops cost advantages. In addition, the Group's multi-energy portfolio strengthens capacity, in managing rising costs in any single energy source, and helps to maintain stable profitability. The Group's stable cash flow and collaborated industries enhances overall risk management capacity, while knowledge and practice-sharing strengthens overall research and development capability.

As at 31 December 2018, 2019 and 2020 and 30 June 2021, the Group's total controllable installed capacity of clean and low carbon energy represented 48.9 per cent., 50.5 per cent, 56.1 and 57.5 per cent. respectively of its total controllable installed capacity.

The diversified power supply structure enhances the Group's overall competitive advantage. At the same time, the Group vigorously promotes the construction of large-scale clean energy bases and large-scale projects in key areas to ensure the country's clean and low-carbon energy supply.

- *The diversified power supply structure and other collaborative industries effectively enhance the ability to resist risks.* The Group's diversified power supply structure smoothes the impact of cost fluctuations in a single power supply sector on profits and cash flow. At the same time, the collaborative industry forms a hedging effect on the power industry, enhancing the Group's overall anti-risk ability;

- *The clean energy priority grid policy will bring competitive advantages to the Group.* In the fierce power market competition in the future, the power structure based on clean energy will put the Group in an active and advantageous position and have greater power priority grid access rights and ensure the steady growth and sustainable development of the Group's profits;

- *The Group aims to build a multi-energy complementary and intelligent synergy clean energy industry system, and create an energy ecosystem by promoting and applying technologies,* such as complementary hydro-solar and wind-solar power and complementary fishery-solar and agricultural-solar power. The Group also targets to solve PV power generation issues such as safe grid connection, improvement of land utilisation rate, environmental governance, etc.; use wind-solar storage, wind-solar hydro, wind-solar thermal and other energy combinations, combined with energy storage and hydrogen energy to achieve multi-energy complementarity, promote user-side electric energy substitution and comprehensive energy utilisation, and promote energy consumption at the spot of generation, thus giving the Group strong competitive advantages.

The Group plans to further promote the construction of its large-scale clean energy bases. The Group has plenty of clean energy bases under construction which are spread across the PRC, including:

- Shandong Haiyang (with a planned installed capacity of 7,500 MW) and Rongcheng (with two CAP1400 units under construction);

- Guangdong Jieyang (with a GW-class offshore wind power base under construction) It is currently the domestic offshore wind power project with one of the most complex sea conditions, the deepest embedment in the seabed, and the most challenging construction. Its foundation columns have set three world leading benchmarks and the technical level has reached the world industry-leading level. The project design, structure manufacturing, and construction preparations are substantively completed. The Shenquan 315 MW is expected to be connected to the grid with full capacity by the end of 2021;

- Liaoning Hongyan River (with four GW-class nuclear power plants in operation and two GW-class nuclear power plants at commissioning phase);

- Sichuan Ganzi (with a long-term planned installed capacity of 12,000 MW, including 2,800 MW of wind power and 9,200 MW of PV power, combining with poverty alleviation in the Tibetan areas of Ganzi Prefecture, following the model of parity online demonstration, water and light multi-energy complementary demonstration, ecological protection demonstration, and industrial cooperation demonstration models to help the Tibetan areas of Ganzi Prefecture get rid of poverty);

- Qinghai Hainan Clean Energy Base (with a planned installed capacity of 21,160 MW, including 12,000 MW of PV power, 4,160 MW of hydropower, 3,000 MW wind power and 2,250 solar thermal power, the first phase with controllable installed capacity of 4,050 MW been completed and connected to the grid);

- Ulanqab of Inner Mongolia (with the largest onshore wind power base in the world in terms of standalone development scale with an installed capacity of 6,000 MW, with the goal of affordable internet access, advanced technology, intelligence, engineering construction, ecological improvement, and social benefits. The base is close to the Beijing-Tianjin-Hebei Power Load Centre, and is of great significance to promote the optimisation and adjustment of the Beijing-Tianjin-Hebei energy structure and serve the Green Olympics. At present, the first wind power generator commenced operation);

- Liaoning Hongyan (the River Power Project comprises No. 1 to 4 generating units already generating energy, and No. 5 to 6 generating units in testing phase, all six units are above a million KW in production;

- Jiangsu Yancheng (with Offshore Wind Power Base comprising Binhai North Region H1 Offshore Wind Power Project with the controllable installed capacity of 100 MW and completed in May 2016; Binhai North Region H2 Offshore Wind Power Project with the controllable installed capacity of 400 MW and completed in June 2018; Binhai South H3 Offshore Wind Power Project with controllable installed capacity of 300 MW and fully connected to the grid in 2020).

The Group believes that favourable clean energy on-grid policy will further place it in an advantageous position in the competitive power market and ensure a stable profit growth and sustainable overall development for the Group.

Leveraging its diverse power structure, the Group strategically optimises the location of its power plants in the PRC and across the globe. For example, the Group's wind farms and PV power plants are mainly located in western China where abundant resources are available, and central-eastern and southern China where demands are concentrated.

Given the Group's market leadership, it actively participates in electricity reform policy research and the preparation of supporting documents. Adapting to the national electricity system reform, the Group took the lead in establishing an energy selling platform and has set up 41 electricity sales companies in Guangdong, Chongqing and other provinces and cities nationwide, which enables the Group to sell electricity and other energy services to customers.

Prominent nuclear power technology leader in China with core competitive advantages throughout the whole nuclear power industry chain

Currently, only three state-owned enterprises are authorised to control and operate nuclear power plants, namely the Group, China National Nuclear Corporation ("**CNNC**") and China General Nuclear Power Corporation ("**CGNPC**"). The Group has a first-mover advantage in the construction of AP/CAP nuclear power plants and played an important role in promoting China's nuclear power industry from second generation to the third generation. The Group undertakes to lead and develop the major science and technology tasks including the advanced PWR nuclear power plants key projects. AP1000 is the largest and the most comprehensive technology importation project, also a significant high technology collaboration between China and the United States, and the Group introduced the third-generation of AP1000 nuclear power technology from Westinghouse Electric Corporation in the U.S. in 2007. This has become the major platform for the realisation, engineering construction and independent development of third-generation nuclear technology and will be used in the construction of more nuclear power stations in the future. AP1000 is a single-stack two-loop pressurized water reactor, with an electric power of 1,250 MW, a design life of 60 years and a double-layer containment. The reactor's dedicated safety system adopts a passive design, which greatly simplifies the system and equipment, and has a small amount of construction and operation and maintenance, with benefits of lower maintenance, high safety and excellent value. Based on the full assimilation, absorption and re-innovation of AP1000 technology, the Group has independently innovated and developed CAP1400 technology, the third-generation nuclear power technology, with the independent intellectual property rights and constructed demonstration engineering projects.

The Group has established a one-stop service platform integrating nuclear power research and development, construction, manufacturing and operation, and gradually established "one-stop" overall design services covering nuclear island, conventional island and BOP. The Group has also achieved progress on nuclear power business, including research and development, engineering design, construction management, plant operation, lifetime services, nuclear power standards system and supplier qualification system. The Group's first set of generating unit that adopted CAP1400 technology procured over 85 per cent. of its materials and equipment from domestic suppliers. The Group believes that the CAP1400 technology meets the highest safety standard and represents the most advanced third-generation nuclear technology in the world, with the number of the nuclear valves reduced by 50 per cent., designed 60-year lifetime, low probability of severe accidents, 72-hour non-intervention period in event of accident, all-new equipment control system design, autonomously designed "Cosine" software. For each unit, the standalone installed capacity and annual power generation reaches 1.5 GW and 12,000 GW, respectively.

The Group has realised an AP/CAP third-generation nuclear energy supply chain globally, with qualified suppliers span fields including mechanical industry, electrical industry, materials, engineering, instrument control and operational services. The Group holds nuclear power mass production capacity which is able to supply six to eight units of AP/CAP nuclear power generating equipment and materials annually. These strong nuclear technological advancements give the Group core competitive advantages throughout the whole nuclear power industry chain in China.

Industry-leading energy sci-tech innovation capacity to maintain its innovation-based leadership

The Group has formed an integrated innovation system by complementing its central research academy with a design institute and industrial development centres. It covers multiple technological areas, coordinates long and short-term development priorities, as well as combining research with operational applicability. The Group has also developed into a highly effective Group wide innovation mechanism. As at 31 December 2020, the Group had eight national-level research centres, 21 provincial-level research centres, 4 post-doctoral work stations, 7 academic expert work stations, 12 industrial innovation centres, and 25 technology research and development centres. As at 31 December 2020, it also had a research and development team comprising over 12,000 technicians, including over 6,000 research and development staff.

The Group has also collaborated with top universities and institutions in China, including Xi'an Jiaotong University, Shanghai Jiao Tong University, Zhejiang University, Tsinghua University and the Chinese Academy of Science, to further enhance its sci-tech innovation capacity.

The Group has devoted continual funding and support to research and development. The Group has also set up a technology venture capital fund which leverages the Group's own fund and external resources to explore a market-driven development model. The fund is dedicated to long-term commitments in technology research and to enhance the Group's leading position in technology. For example, the Group has set up a fund of RMB1 billion, the Energy New Technology Innovation Investment Fund, to support its energy sci-tech innovation.

The Group insists on technological innovation-led industrial development, possesses a complete innovation chain and strong technical strength in the fields of third-generation nuclear technology, clean and efficient coal-fired power generation, PV power generation and power station environmental protection, and obtained a series of major innovative results with proprietary intellectual properties. The Group's research and development results and scientific strengths have been highly recognised. The Group received more than 30 National Science and Technology awards. The Group also received several dozen first national, provincial and ministerial-level awards, and several hundreds of second and third national, provincial and ministerial-level awards. By the end of 2020, the Group had won over one hundred provincial-level sci-tech and industrial awards.

The Group has also established a comprehensive sci-tech innovation system. The Group formed the thirteenth five-year sci-tech plan, setting out the goals, plans, policies and measures for sci-tech development. The Group formed measures on research and development projects management, specifying the management measures on various aspects such as a research and development plan, achievement, standards, rewards and evaluation. The Group has also set out measures on sci-tech achievement transformation, as well as measures on first product certification management.

The following are some technological innovations of the Group:

- *The large advanced Pressurised Water Reactor ("**PWR**")*: CAP1400 has been developed from the major national special sci-tech project of the large advanced PWR nuclear power plant, which meets the highest safety standard and represents the most advanced third-generation nuclear technology in the world.

- *Heavy-duty gas turbines*: One of the important choices to achieve large-scale clean energy alternatives. Its R&D and manufacturing levels represent a country's heavy industry and high-end manufacturing levels. It can start and stop frequently and quickly, optimising the energy structure and is suitable for power grid peak adjustment.

- *Utilisation of nuclear energy in district heat supply and small modular reactors ("**SMRs**")*: Shanghai Nuclear Engineering Research & Design Institute developed the integrated nuclear heating reactor is capable of supplying steam of 250 tonnes per hour or providing heat for 4 million square metres, achieving environmental friendly and safety goals of "near zero emission" and "low carbon with no pollution", reaching leading international level. In November 2020, the Haiyang Nuclear Power Plant had two major breakthroughs: Firstly, the phase two of Haiyang Nuclear Power Plant, the 4.5 million square meter nuclear energy heating project, officially started to establish the country's first zero-carbon heating city, which will achieve zero-carbon heat supplying system for an entire city once the phase two is completed; and secondly, hydro-thermal simultaneous transmission project was officially put into operation, becoming the first project of the kind in the world.

- *Development of energy technology*: For PV power, the Group has the ability to conduct research and development and design in the photovoltaic industry chain including polysilicon manufacturing, slicing, solar cells and modules, and solar photovoltaic power generation, increasing the output of photovoltaic cells by approximately 24 per cent.; for wind power, the Group independently developed large-scale energy industry software platform "Yufeng System" which carries out collective wind resource assessment system, electricity weather reports and wind plants control optimisation; for hydropower, the Group has successfully developed and officially launched China's first group-level unified dam safety management information work platform, and built a cloud platform for the hydropower industry, implement remote centralized control, remote operation and maintenance, to enhance the digital and intelligent level of the hydropower industry; for environmental protection, the Group developed and applied the "adaptive boiling foam desulphurisation and dust removal device"; for hydrogen energy, the Group has built the entire industrial chain of hydrogen energy production, storage, transmission and use of core technologies of the entire chain such as fuel cell catalysts, membrane electrodes, and bipolar plates, and developed the "Hydrogen" brand battery products with independent intellectual property rights; and for energy storage, the Group has developed iron-chromium flow battery products and is constructing the world's first outdoor demonstration test platform for PV and energy storage.

The Group has also proposed the concept of "Integrated Intelligent Energy" which consolidates different forms of energy, such as electricity, heating, cooling, gas and water, and provides comprehensive energy solution to residents within a specific region. Integrated Intelligent Energy breaks the traditional model of separated planning, design, and operation of different energy types, and provide regional integrated energy solutions. It can also maximise utilisation of local energy resources, match local demand with local supply, optimise synergies between generation, transmission and consumption of different varieties of energy, and improve the overall efficiency of the energy system. The integration and coordination of different energy supply is designed to be facilitated by the intelligent service control centres. The Group is one of SASAC's exemplary enterprises of Integrated Intelligent Energy development, who led the establishment of China Smart Energy Industry Alliance. The Group participated in the construction of demonstration projects on multi-energy complementary integration and optimisation, and promoted research of integrated smart energy resource and the formulation of related policies. By focusing on digital and smart energy production, storage, supply, consumption and services, the Group pursues horizontal coordinated supply of "electricity, heat, cooling, gas, water, hydrogen" and other types of energy to achieve vertical optimisation of interaction among "source-network-load-storage-utilisation" and other stages. The Group builds an energy network that seamlessly connects the "Internet of Things" and the "Internet", and provide end users with integrated energy services. The integrated intelligent energy technology can be applied to many scenarios, including

- smart cities and counties (including service targets such as new urban districts, old towns or counties and towns, and at the same time carry out comprehensive energy construction and services in accordance with the requirements of new smart city construction).

- industrial parks (serving Industrial park or high-tech park (which may be a single type of industry, or can comprise of multiple types)).

- office buildings (serving hospitals, commercial buildings, data centers, office buildings, schools; developing smart buildings and to bring improvements to energy efficiency, comfort and energy self sufficiency).

- power plants (using wind-solar storage, wind-solar hydro, wind-solar thermal and other energy combinations, and combining with energy storage and hydrogen energy to achieve multi-energy complementarity, and thus to promote user-side electric energy substitution and comprehensive energy utilisation).

By the end of 2020, the Group has 407 Integrated Intelligent Energy projects, which 111 projects are in operation, 61 projects are under construction and 235 projects are still in preparation.

Major Integrated Intelligent Energy projects of the Group include:

- *Baozhigu Integrated Intelligent Energy Project*: On 30 June 2020, the Baozhigu Integrated Intelligent Energy Project, also the first "zero-carbon" energy supply project of the Group, was officially put into operation. The project built a smart micro-grid for wind power, solar power, energy storage and charging, combining with the project park's own renewable Energy generation accounts for more than 50 per cent. of the electricity used in the park. The electricity storage system has an annual storage capacity of 750,000 kWh. The park utilised the innovative application of the independently developed thermocline dual cold and heat storage tanks to adjust and coordinate fluctuation of the energy demand between peak hours and downtime. The technology can achieve annual energy savings of more than RMB2 million, reduce natural gas usage by 800,000 cubic meters and reduce carbon dioxide emissions by 1,520 tonnes per year.

- *Hainan Yangpu Port Shore Power Project*: On 16 October 2020, the Group and the Hainan Provincial Government officially started the construction of the collaborative project, the Hainan Yangpu Port Shore Power Project. The project is a strategic pilot project and an important supporting facility for the Yangpu Port to become a "green port" and "smart port", and is of great significance to the "blue sky project" and "air cleaning project". The project uses cloud centre plus 5G technology, a series of customised innovative designs, equipment configuration and management systems to achieve the construction of the smart port. After completion, green electricity will be used to replace diesel for ships in port, which will effectively reduce sulphide, nitrogen and dust emissions, achieve zero fuel consumption, zero emissions, and zero noise, and strive to build the country's first provincial integrated shore power investment and operation platform.

After the construction is completed, green electricity will replace diesel when ships are in port, effectively reducing sulphide, nitride and dust emissions, achieving zero fuel consumption, zero emissions, and zero noise. The Group aims to build the country's first provincial integrated shore power investment platform with the project.

The Group is dedicated to further optimise its power structure and develop the application of diversified clean energy. The Group has started to explore new energy industries and business formats:

- *Hydrogen energy*: Developing the application of hydrogen energy products and hydrogen production with clean energy, striving to become an integrated development service provider of the hydrogen energy industry chain, a leader in advanced independent technology of the hydrogen fuel cells and a promoter of the development of the national hydrogen energy industry, and has developed megawatt class hydrogen fuel cell and put it into trial operation. The Group is the potential cooperation unit of the demonstrative application of hydrogen energy in the 2022 Winter Olympic Games. In 2020, the Group conducted the trial operation of natural gas mixed with hydrogen combustion demonstration, which is the first of the kind in China.

- *Stored energy*: The iron-chromium flow battery is one of the most promising energy storage technologies that can improve the stability of the power grid and one of the best energy storage technology for renewable energy. The Group developed 2 KW to 250 KW series iron-chromium flow energy storage battery products, using PRC local production of all components. The photovoltaic industrial park energy storage power station is the first project in China that covers all mainstream photovoltaic and energy storage technology routes. The construction of the first MW-class iron-chromium flow battery energy storage exemplary project in the PRC has commenced in Zhangjiakou.

- *Energy Industry Internet*: The Group takes the lead in the construction and operation of the energy industry Internet platform to accelerate the construction of a clean, low-carbon, safe and efficient energy system, and promote the transformation and upgrading of the energy industry and green development. The platform gathers data on energy production, economy, consumption, and security to carry out energy industrial control security situation awareness, big data application, smart energy project development, energy financial derivative services, among others.

- *Green electric transportation*: The Group leverages on the advantages of industrial finance, integrating the upstream and downstream resources of the energy industry chain, successfully developed the world's first smart unattended swap station in 2018, and realised the large-scale marketisation of electric energy substitution through the innovative model of "car-electricity separation" application. As of August 2021, a total of more than 8,000 heavy trucks and construction machinery have been swapped and substituted fuel with electricity, more than 2,000 units have been in operation, and the cumulative operating mileage has exceeded 30 million km. The Group plans to build 80 replacement power stations in 25 provinces and cities across the country and delivered 26 such stations for operation.

Strong integrated synergies along the industrial chain, which significantly increases operating efficiency

The Group benefits from strong integrated industry synergies, which ensure a significant improvement in operational efficiency. On the basis of asset strength in coal and power generation and the principle of balanced development, the Group has extended its business following the value chain of coal/wind-power-aluminium and hydro-power-aluminium, coupled with comprehensive support from sci-tech innovation, environmental techniques and ancillary businesses, including financial business and logistics, such as railway and port resources for transportation within the Group. The Group has two operating railways, one operating port and one port under construction, including which the Jinbai transportation channel is an important link in the Group's industry chain by road and port for coal, electricity, and aluminium. The Group promotes a positive collaborative environment that raises the competitiveness of the electricity and coal industries. Meanwhile, green energy supports the development of the Group and contributes to China's "Uphill Battle for Prevention and Control of Pollution". This has strengthened segment integration and increased the competitiveness of the Group's coal and power business.

For example, the Group's Huolin River Cyclic Economy Demonstrative Integrated Generating Cluster Project is a large-scale and complicated cyclic project of intelligent electricity grid, lignite, coal power plant, wind farm and electrolytic aluminium smelting. The project has the features of rich collaborative industries, complex operations and high technical content. Through integrating global resources, the project improved the utilisation efficiency, enhanced economic efficiency and have an industry leading position. As at 31 December 2020, the total controllable installed capacity of the Huolin River Project was 2.2 GW, including thermal power of 1.8 GW and wind power of 0.4 GW; total transformer capacity was 5,749 MVA; the rectification load for primary aluminium was 1.33 GW and annual production capacity was 860,000 tonnes. In 2020, the gross power generation of Huolin River Project was 13,620 GWh, including thermal power of 12,170 GWh and wind power of 1,450 GWh. Total electric power consumption of aluminium plant was 12,817 GWh.

The Huolin River Cyclic Economy Demonstrative Integrated Generating Cluster Project also uses a variety of energy generation in an integrated way, such as coal classification utilisations, water conservation and utilisations, electricity and heat utilisations, *in situ* conversion for utilisations of low value coal and wind power, utilisations of clean energy by smart grid, and joint operations of coal, electricity, port and railway industry. The coal classification utilisations help *in situ* conversion of inferior coal to power generation and aluminum smelting, provide medium-quality coal for power generation at the pithead power station, and export high-quality coal to support the development of power stations at intersections and ports. The water conservation and utilisations mainly use the urban reclaimed water and maximise the use of coal mine drain water as a supplement, which can reduce water consumption and protect the ecological environment. The water conservation and utilisations consume 3.5 million square metre urban reclaimed water and 650,000 square metre coal mine drain water every year. The electricity and heat utilisations help to consume inferior coal for power generation, realise the combined supply and sale of electricity and heat, and solve the environmental pollution problem caused by small coal burning boilers by replacing over 40 low efficient small coal burning boilers, with a heating area of over 6.5 million square metres. The low value coal and wind power could be converted *in situ* by electrolytic aluminum products, and every 860,000 tons of electrolytic aluminum products could consume 10 million tons of inferior coal and 1.45 billion KWh wind power every year. For the utilisations of clean energy by smart grid, the project developed a environmentally friendly modern smart grid, with the goal of absorbing substantial wind power with the current penetration rate of smart grid reaching 38.25 per cent.. For the joint operations of coal, electricity, port and railway industry, the project forms a large coal transportation channel in East Mongolia that integrates production, transportation and sales, logistics, information flow and cash flow.

The Group also strives to optimise its thermal power structure and its efforts have led to the significant increase in its operating efficiency. The Group's standard coal costs for power generation have consecutively decreased, being 315.0 g/KWh, 309.7 g/KWh, 307.5 g/KWh, 304.9 g/KWh, 302.7 k/KWh, 300.4 g/KWh, 299.9 g/KWh and 299.1 g/KWh for each year from 2013 to 2020, respectively. The Group's integrated power plant's power consumption has also decreased from 5.91 per cent. in 2013 to 5.72 per cent. in 2014 and further decreased and stabilised at a lower levels of 5.7 per cent., 5.6 per cent., 5.2 per cent., 5.2 per cent. and 5.0 per cent. in 2016, 2017, 2018, 2019 and 2020 respectively. The desulphurisation and denitrification equipment rate remains unchanged at 100 per cent. from 2017 to 2020.

Extensive financing channels and low-cost financing capability

Compared with other power generating groups, the Group has a low asset securitisation rate, which allows sufficient room for future equity financing activities. The Group has eight listed and quoted companies, and through these listed companies the Group may promote the listing of specialised segments, connect onshore and offshore capital markets and obtain funds, and adjust debt structure through equity financing as appropriate.

The Group has strong credit position and financing capability. Currently, the Group has completed TDFI registration (uniform registration of multi-variety debt financing instruments) at China's National Association of Financial Market Institutional Investors and became one of TDFI's few members. The Company was the first batch of 21 mature-tier first-class enterprises (TDFI enterprises) of the Interbank Market Dealers Association. As TDFI's member, the Group enjoys favourable policies to issue bonds in a more flexible and efficient manner, which provides stable supports to the Group's financing activities in financial markets. In 2018, the Group was also recognised as one of the first enterprises under the newly formulated Corporate Bond Optimisation Financing Regulatory Guide and Guidelines for Continuous Financing Supervision (公司債券優化融資監管指南和持續融資監管指南) ("**Optimisation Financing Regulatory Guide**") by Shanghai Stock Exchange and was approved to publicly issue corporate bonds of no more than RMB26 billion under the shelf offering scheme, which will be the first public shelf offering since the implementation of the Optimisation Financing Regulatory Guide. The Group's high-quality rating is well-recognised by both onshore and offshore investors. For example, it has received AAA rating (from CCXI and Dagong) in China. The Group has also been assigned a corporate credit rating of A2 by Moody's, A by Fitch and A- by S&P. The Company has also been awarded the Excellent Issuer by Shanghai Clearance House and Excellent Corporate Bond Issuer by Shanghai Stock Exchange for four consecutive years from 2017 to 2020. The Company has been granted the approval of the issuance of corporate bonds in the PRC in an aggregate amount of up to RMB50 billion in 2020.

The Group has established comprehensive strategic partnerships with China's leading banks. These banks provide ample sources of funds to the Group. The Group has unused credit lines of over RMB1,003.6 billion as at 31 December 2020. As at 31 December 2020, the Group had received credit lines of RMB1,617.5 billion from banks in total, including undrawn credit lines of RMB1,003.6 billion. The Group also maintains a long-term partnership with China's major insurance companies, such as China Life Insurance and Ping An Insurance.

As at 31 December 2020, the Group had 20 per cent., 25 per cent., 12 per cent. and 43 per cent. of its total debts with a tenor of less than one year, between one to three years, between three to five years and more than five years, respectively. In 2020, SPIC established a medium term note programme with a programme size of U.S.$3 billion and listed on the Hong Kong Stock Exchange, with initial drawdowns of a U.S.$1 billion notes with a five year tenor.

The Group from time to time considers financing proposals to optimise its capital structure. Such financing proposals may include the use of equity, bonds, loans and hybrid securities. The Group will prudently raise funds to improve its capital structure and lower its financial costs.

Efficient modern management system, sound risk control, and safe and reliable production and operation

The Group is one of central enterprises mergers and reorganisations, state-owned enterprise information disclosure and SASAC's Board of Directors' governance structure pilot units. The Board of Directors has independent decision-making rights and capacity, which effectively improves decision-making efficiency. The Board of Directors has five special committees, namely, Strategic Development Discovery Committee, Nominating Committee, Remuneration and Appraisal Committee, Audit Committee and Audit and Risk (Compliance) Control Committee, as its decision-making advisory body. The Group also published its risk control compliance manual which covers a wide range of topics including basic compliance information, compliance management introduction, compliance structure, detailed guidelines, laws and regulation index and case studies. The Group optimises management and control patterns, streamlines business structure, promotes a series of restructuring and reform programmes, such as distribution system reform, and establishes a more efficient management system.

In January 2016, the Board of Directors formally established. The next term of the Board began in November 2019. Currently the Company achieved a majority of external directors. The Company has formed a governance structure in which the investors, the Board of Directors, and the management are each in responsible, coordinated operation, with effective checks and balances. The Group standardise the Board decision-making at the Group level, to implement collective deliberation, independent voting, and individual responsibility of the Board of Directors, with the decision-making system of a single vote per person, directors' resolution tracking implementation of a post-evaluation system. The Group also aims to improve the corporate governance of subsidiary companies and strengthen the constitution of the board of directors by (i) improving the top-level design of corporate governance; and (ii) promoting the establishment of the board of directors of subsidiaries at all levels, and targets to complete the establishment of the board of directors of all second-level units in August 2021.

The Group has adopted a five-layer review and assessment system for project investments (comprising the Board of Directors, the General Manager Office, the investment project coordination team, the project accountability entity and the project implementation entity), each with separate duties and functions, and evaluating a potential project from the aspects of industry, return, risk and synergy, so as to ensure comprehensive risk control.

In accordance with the principle of unified management and hierarchical control, the Group integrates emergency management into every part of business management, and has established and improved its three-level emergency management organisation system. Specifically, the Company's headquarters conducts overall supervision and professional management, with support from the safety and environment department and each power business department, and conducts evaluations and spot checks annually under the categorisation of power generation, mine, chemical industry, metal smelting, logistics and others. At the headquarters level, the leadership provides comprehensive supervision and management of the Group's safety operation. The secondary subsidiaries within the Group undertake the supervision and management and system assurance responsibility for safe production within the tertiary subsidiaries and conduct evaluations on tertiary subsidiaries at least biennially. The tertiary subsidiaries are directly responsible for establishing and implementing and improving safe production responsibility system, rules and regulations, safe production investment, hazards and risk investigation, and management and emergency management, and conduct self-evaluations annually. Some members of the Group also carry out emergency exercises with relevant local government departments on a regular basis according to emergency drilling programmes, and improve their emergency management system continually. The Group also reviews and updates its emergency rules and safety management measures on a regular basis. Benefiting from its efficient modern management system and sound risk control, the Group has achieved safe and reliable production and operation. As at the date of this Offering Circular, the Group has not encountered any material personal casualties or equipment accidents, reservoir, ash silo or tailings pond collapse accidents, or railway traffic accidents.

Experienced, professional and motivated management team supported by a highly skilled professional talent team

The Group has an experienced and knowledgeable management team. The Group's senior managers each have an average of over 25 years of experience in the PRC's power industry and the broad range of industry expertise necessary to develop and execute its strategy to capture market opportunities.

The Group's management team is supported by highly skilled employees with extensive technical know-how and high levels of qualification and training. The Group's in-house training centre provides professional training to its technicians and management to ensure they are equipped with necessary knowledge in the power industry and best practices of various aspects of the Group's business. The Group has established a Talent Development Committee in which the President acts as the head and the relevant Vice President acts as deputy head. The Group has also set up a Leadership Institute and Talent Institute as well as 23 distinctive talent training bases, including one of China's first batch of "20 Overseas High-level Talents' Innovative and Entrepreneurial Bases".

STRATEGIES

The Group aims to become a world-leading clean energy enterprise with global competitive edge in the fields of clean energy supply and integration of energy ecosystems by innovating in advanced energy technologies and quality engineering service. The Group will strive to achieve this aim through the promotion of coordinated industrial and regional development and international development and the building of world-renowned brand name, and by capitalising on the revolutionary energy trends of the world as well as advantages offered by the modern Chinese state-owned enterprise system. The Group strategically position itself as an advanced energy technology developer, a clean and low-carbon energy supplier and an energy ecosystem integrator. The Group intends to complete the transformation to a modern clean energy enterprise and state-owned capital investment company, to accelerate overseas development and to operate the world-leading PV business. The Group's goal is to become the first state-owned enterprise to achieve the peaking of carbon dioxide emissions by 2023, a clean energy enterprise with international influence by 2025 and a world-leading clean energy enterprise with global competitive edge by 2035.

The Group has the following business vision:

- *Innovation*: the Group aims to take green and low-carbon energy as the main direction, turning technological advantages into economic advantages.

- *Coordination*: the Group aims to adhere to a balanced growth between capacity, segment and region.

- *Going green*: the Group aims to promote energy green revolution, focus on the main power industry, focus on clean energy, and integrate the concept of ecological civilisation into enterprise development.

- *Openness*: the Group aims to further improve both domestic and international cooperation.

- *Sharing*: the Group aims to reinforce the belief that talent is the Group's first resource and promotes the common development of employees, enterprises and the nation at large.

- *Industrial finance*: the Group aims to use the capital to effectively support the main business.

The Group's strategies include to:

Continue to strengthen the Group's leading position in the PRC power sector.

As one of the largest integrated energy conglomerates in the PRC, the Group plans to strengthen its leading position in the PRC power sector by continuing to increase the Group's total controllable installed capacity, maximising the Group's operational efficiency, optimising the geographical distribution of Group's power projects, and promoting synergies and complementary projects of different sub-segments of its power business. In addition, the Group plans to apply the skills and experience the Group has gained through its significant operating history to identify and develop new projects, as well as supplement its organic growth and enhance the scale of its operations by selectively pursuing acquisitions of additional power businesses and assets.

Continue to strengthen the development of its clean energy power business.

The Group believes clean energy power markets in China have great development potential in light of legislation and favourable policies promoting the use of clean energy sources. As at 31 December 2020, the total controllable installed capacity of the Group's clean and low carbon energy represented 56.1 per cent. of its total controllable installed capacity, which is the highest among the top five power generation groups in the PRC. As at 30 June 2021, the total controllable installed capacity of the Group's clean and low carbon energy represented 57.5 per cent. of its total controllable installed capacity The Group believes its wind power and PV power expertise and track record, and its in-depth knowledge of local electricity markets give it a competitive advantage in capturing market opportunities in the wind and solar power markets. The Group is focusing its development efforts on southern, central and eastern China areas which have abundant wind resources, and western China which has abundant solar resources. The Group is also exploring opportunities to expand its capabilities in electricity generation from other clean energy resources, including natural gas. The Group intends to continue to develop and enhance its capabilities in operating clean energy projects, thereby allowing it to diversify its project portfolio and exploit new business opportunities.

Accelerate the pace of developing nuclear power business.

The Group plans to push forward its third generation AP1000 project and CAP1400 nuclear power demonstration project and to master the independent third-generation nuclear power technology, which helps the Group to form the mass production capacity of the third-generation nuclear power. The Group believes it can continually support the sustainable development of the third-generation nuclear power in China, promote the localisation of nuclear power technology and equipment manufacturing, and successfully complete the major science and technology tasks of national large-scale advanced PWR nuclear power plants. The Group believes that its strong research and development capabilities and recent successful Merger lay a solid foundation for the development of its nuclear power business.

Accelerate the pace of and being dedicated to developing overseas markets.

Overseas businesses cover power project investment, technical cooperation, EPC, among others. The Group plans to actively expand its power business into the international markets. The Group believes that the expansion would help diversify its revenue base, increase its growth potential and enhance its brand. In addition, the Group plans to explore business opportunities globally in the thermal power markets, in the nuclear power markets in countries including South Africa and Turkey, in the hydropower market in Asia and Pacific area and Brazil, and in other clean energy markets in developed countries in Asia and Pacific, Europe and North America. The Group believes that its comprehensive capabilities in the development and management process of power projects enable it to compete in its selected international markets.

Continue to invest in research and development and technology innovation.

The Group believes that utilisation of advanced technologies is vital to maintaining and furthering its competitiveness. The Group intends to continue to invest in its research and development efforts and technology innovation, focusing on developing proprietary key technologies in the areas of nuclear power, heavy-duty gas turbines and solar power, as well as the commercialisation of technology. In addition, the Group plans to closely monitor industry trends and actively undertake and lead national key research and development projects.

AWARDS

Awards in recognition of outstanding industry position

- The Project of the Year by PMI (China) Project Management in 2019
- The National Quality Engineering Golden Award by the China Association of Construction Enterprise Management in 2019
- The Gold Award for Coal Power Project of the Year of Asia Power Awards 2018
- The National Quality Engineering Golden Award by the China Association of Construction Enterprise Management in 2017
- The National Quality Project Award by the China Association for Quality in 2017
- The Gold Award of International Excellence Project Award by the International Project Management Association in 2017
- The China Electricity Power Quality Award by the China Electricity Power Construction Association in 2017
- The First Prize of Science and Technology Award by the China Nuclear Energy Association in 2017
- The First Prize of Outstanding Engineering Consultation Achievement Award by the Ministry of Nuclear Industry in 2017
- Cross-Border M&A Deal of the Year by Latin Finance magazine in 2017
- Gold Prize of National Quality Engineering Project by the NDRC in 2016
- The First Prize in the National Large Generating Unit Contest in 2015 and 2016
- No. 1 Ranking in National Generating Units in terms of Reliability in 2015 and 2016
- The Best Generating Unit by Coal Consumption Efficiency among Central Enterprises in 2015

Awards in recognition of remarkable technological innovation

- The Grand Prize and the First Prize of China Power Innovation Award in 2017
- The First Prize of the National Electricity Staff Technology Achievement Award by the National Electricity Council in 2017
- The China Semiconductor Product and Technology Innovation Award by the China Semiconductor Industry Association in 2017
- The First Prize of the National Electricity Science and Technology Progress Award in 2016 and 2017
- The Second Prize of the National Science and Technology Progress Awards by the State Council in 2016

- The First Prize of Electricity Industry Digitalisation, Outstanding Achievement Award by the China Electricity Council in 2016

- The First Prize of China Machinery Industry Science and Technology Progress Award in 2015 and 2016

- The First Prize of the China Power Innovation Award in 2015

- The First Prize of Outstanding Computer Software Award of the Year by the Ministry of Nuclear Industry in 2015

- Second Prize in the State Technological Innovation Awards in 2015

- The First Prize of China Non-ferrous Metal Science and Technology Award in 2015

Awards in recognition of excellent corporate governance

- The First Prize of Enterprise Management Innovation Achievement Award for National Power Industry in 2017

- The Excellent Investment Project by the Investment Association of China in 2017

- *Construction and Implementation of Central Enterprises' Asset Evaluation and Management System* won the first prize of Enterprise Management Innovation Achievement Award for National Power Industry in 2015

- *Equity Management System of the Group* won the first prize of Enterprise Management Innovation Achievement Award for National Power Industry in 2015

- The Gold Prize of Best Capital Management designated by Financial Times and Institute of Finance of the Chinese Academy of Social Science in 2015

- SOE Reform Innovation Supporting Legal Award in 2015

- Integrated control system construction of energy conglomerate won the First Prize of the Twenty-first session of the National Enterprise Management Modern Innovation Achievement Awards in 2015

Awards in recognition of comprehensive social responsibility

- Today Reform Progress Prize by United Nations Climate Change Conference in 2017

- Advanced Group in the Field of Power Standardisation in 2016

- "Yingshanhong" Edu-Aid Volunteer Public Welfare Action was awarded Voluntary Service Brand among Central Enterprises in 2016

- Advanced Group in the Work of National Security People's Defence Construction of the Year in 2013 and 2015

RECENT DEVELOPMENTS

In 2020, impacted by geopolitics, economic and trade frictions and global spread of COVID-19, the world economy is facing great downward pressure. The duration and scale of COVID-19 and its impact on the world and Chinese economy remain to be seen.

While business activities in China have been recovering, substantial uncertainties of the impact of COVID-19 remains. For certain risks relating to COVID-19, see "*Risk Factors – Risks Relating to The Group's Business and The Power Industry – Fluctuations in global and Chinese economic and market conditions could materially and adversely affect the business activities, financial condition and results of operations of the Group.*" and "*Risk Factors – Risks Relating to The Group's Business and The Power Industry – Natural disasters, epidemics and other acts of God, including the ongoing COVID-19 pandemic may result in accidents or business interruption, which may materially and adversely affect the Group's business, results of operations and financial condition.*" The Group aims to continue paying close attention to and make assessment of the impacts of COVID-19 and enhance risk control.

Financial Results as at and for the Six Months ended 30 June 2021 of the Group

The key information from the Parent's Consolidated Half-Year Financials has been included in the "Summary Consolidated Financial Information" section and remains unaudited and unreviewed. The Parent's Consolidated Half-Year Financials are condensed consolidated financial information of the Group and there are no notes to the consolidated financial information contained therein.

The Interim Financial Information of the Company have not been reviewed or audited

The Parent's Consolidated Half-Year Financials has not been reviewed or audited by BDO or any other person and consequently should not be relied upon by investors to provide the same quality of information associated with information that has been subject to an audit or review. None of the Joint Lead Managers or any of their respective affiliates, directors, officers, employees, agents, representatives or advisers makes any representation or warranty, express or implied, regarding the accuracy or sufficiency of such consolidated financial statements for an assessment of, and potential investors must exercise caution when using such data to evaluate, the Group's financial condition and results of operations. The Parent's Consolidated Half-Year Financials should not be taken as an indication of the expected financial condition or results of operations of the Group for the full financial year ending 31 December 2021. See "*Risk Factors – Risks Relating to the Group's Business and the Power Industry – The interim financial information of the Company contained in this Offering Circular have not been reviewed or audited*".

BUSINESS SEGMENTS

The Group primarily engages in the power generation business and has diversified power assets across thermal power, nuclear power, hydropower, wind power, PV power and other non-nuclear clean energies. The Group also engages in ancillary business such as heating, coal, aluminium and other ancillary business. The Group's core business segment contributed to the majority of the total revenue of the Group for each of the three years ended 31 December 2018, 2019 and 2020.

The following table sets forth certain details of the Group's six business segments for the periods indicated.

	Year ended 31 December					
	2018		2019		2020	
	Revenue		Revenue		Revenue	
	(RMB in millions) (restated)	%	(RMB in millions) (restated)	%	(RMB in millions) (restated)	%
Business segments						
Power generation	147,760.5	65.2	176,697.1	64.9	183,626.2	66.0
Heating	8,411.4	3.8	7,298.5	2.7	6,758.5	2.4
Coal	5,967.5	2.6	5,407.3	2.0	6,177.0	2.2
Aluminium	36,984.2	16.3	57,069.8	20.9	54,014.3	19.4
Others	22,725.8	10.0	20,599.6	7.6	21,434.4	7.7
Ancillary business	4,651.7	2.1	5,167.7	1.9	6,055.8	2.2
Total Revenue	**226,501.1**	**100.0**	**272,239.9**	**100.0**	**278,227.8**	**100.0**

Power Generation Business

The power generation business is the core business segment of the Group and the main revenue contributor. The Group designs, develops, manages and operates power plants, power stations and wind farms, and sells the electricity generated by its plants to local grid companies. The Group has diversified power assets across thermal power, nuclear power, hydropower, wind power, PV power and other non-nuclear clean energies. Revenue from the Group's power generation business for the three years ended 31 December 2018, 2019 and 2020 amounted to RMB147,760.5 million, RMB176,697.1 million and RMB183,626.2 million, respectively, accounting for approximately 65.2 per cent., 64.9 per cent. and 66.0 per cent. of its total revenue during the same period, respectively.

The following table sets out certain details of the total controllable installed capacity of the Group's power generation business as at the date indicated.

	Year ended 31 December						Six months ended 30 June	
	2018		2019		2020		2021	
	Total controllable installed capacity		Total controllable installed capacity		Total controllable installed capacity		Total controllable installed capacity	
	(GW)	%	(GW)	%	(GW)	%	(GW)	%
Thermal power	78.73	56.1	81.42	53.9	84.81	48.1	84.97	46.6
Nuclear power	5.73	4.1	6.98	4.6	6.98	4.0	6.98	3.8
Hydropower	23.85	17.0	23.94	15.9	24.01	13.6	23.99	13.2
Wind power	16.57	11.8	19.32	12.8	30.88	17.5	33.03	18.1
PV power	15.37	11.0	19.29	12.8	29.61	16.8	33.26	18.3
Total	**140.25**	**100.0**	**150.94**	**100.0**	**176.3**	**100.0**	**182.2**	**100.0**

The following table sets out certain details of the Group's annual power generation for the periods indicated.

	Year ended 31 December						Six months ended 30 June	
	2018		2019		2020		2021	
	Annual Power Generation		Annual Power Generation		Annual Power Generation		Half Year Power Generation	
	(billion KWh)	%	(billion KWh)	%	(billion KWh)	%	(billion KWh)	%
Thermal power	325.7	65.4	337.5	61.0	341.5	58.9	183.9	58.4
Nuclear power	33.3	6.7	53.4	9.6	51.9	8.9	27.4	8.7
Hydropower	90.4	18.2	101.0	18.2	109.7	18.9	43.5	13.8
Wind power	30.5	6.1	37.7	6.8	44.8	7.7	37.3	11.9
PV power	18.1	3.6	24.3	4.4	32.1	5.5	22.6	7.2
Total	**498.0**	**100.0**	**553.8**	**100.0**	**580.0**	**100.0**	**314.7**	**100.0**

The Group is a world leading clean and low carbon energy provider. As at 31 December 2020, the Group's clean energy represents highest proportion of total controllable installed capacity among the top five power generation groups in China, PV energy controllable installed capacity is the highest in the world at 29.61 GW, controllable installed capacity of wind power is second highest in the world at 30.88 GW and has comprehensive and diverse energy structure advantage.

The Group also integrates energy ecosystems that provides multi-energy complementary solutions realises the efficient synergy between multiple energy varieties and multiple supply links, the green development of circular economy, and the energy ecological development of multi-energy complementary and intelligent coordination. The Group aims to build a model enterprise and is currently leading the China Smart Energy Industry Alliance to build a national industrial Internet platform, to provide Chinese perspectives of intelligence and solutions to promote the deep integration of energy and the Internet, big data, and artificial intelligence.

The Group is one of China's three major nuclear power development and construction operators, the only power generation group among China's five major power generation groups that has comprehensive nuclear power holding, development, construction, and operation qualifications. The Group also holds world leading passive third-generation nuclear power technology, and actively promotes China's third-generation nuclear power autonomy and industry globalisation.

Thermal power

As at 30 June 2021, the total controllable installed capacity of thermal power plants invested and operated by the Group amounted to 84.49 GW. By the end of 2020, the Group has 15.61 per cent. of coal-fire power generating units with 1 GW capacity, ranked No. 2 amongst the top five power generation groups in China; 47.43 per cent. of coal-fire power generating units with 0.6 GW capacity, ranked No.1 amongst the top five power generation groups; and 63.04 per cent. of coal-fire power generating units with 0.6 GW or more capacity, ranked No.2 amongst the top five power generation groups. In first half of 2021, the Group generated thermal power of 183.9 billion KWh. The Group has been actively optimising its thermal power asset structure by focusing on large capacity and energy saving power units, equipment and technology upgrades, and thermoelectric gas-steam combined cycle power plants and natural gas distributed energy systems. All of the thermal power units invested and operated by the Group have been equipped with desulphurisation equipment and denitrification equipment. The Group is also carrying out ultra-low emission modification of thermal power units on a large scale, with the aim of achieving an emission target

even better than that of gas units. The Group aims to continue to execute the ultra-low emission modification and focus on developing clean energy thermal power. The Group leverages its resources capability while continually optimising its power plant spread across the PRC. Its thermal power assets are located in areas where coal resources or power demands are concentrated.

The following table sets out a summary of certain details of the illustrative thermal power projects of the Group.

Project name	Controllable Installed capacity	Descriptions	Awards
Shanghai Electric Power Tianji Power Plant Phase II.	2×700 MW	• No. 3 generating unit won the title of "the Best Generating Unit by Coal Consumption Efficiency" granted by SASAC in 2015 for its low coal consumption of 274 g/KWh (saving about 10 g/KWh) • annual standard coal saving of 62,700 tonnes, carbon dioxide emission reduction of 166,800 tonnes and sulphur dioxide emission reduction of 1,300 tonnes	• Gold Award for National Quality Project in 2015 • the world's first operating 620°C reheat steam temperature TT-type boiler system
Pingwei Power Plant .	4,540 MW	• the world's first "Three Million" project with "GW-capacity generating unit, megavolt-level in-plant master substation voltage and megavolt-level UHV power output lines" • total controllable installed capacity is 4,540 MW, being the largest thermal power plant of the Group in terms of controllable installed capacity	• Pingwei Phase III won the Award for China's Quality Power Engineering Project and in 2016 the "Installation Star" • Pingwei Phase II won the Award for China's Quality Power Engineering Project in 2009 • Pingwei Power Plant won the Fourth Session of National Power Industry Equipment Management and Innovation Award in 2013
Shanghai Electric Power Caojing Power Plant	2×1,000 MW	• after renovation, emission of dust, sulphur dioxide and nitrogen oxides are 1.8 mg/m^3, 13.9 mg/m^3 and 21.6 mg/m^3, respectively, all better than benchmark emission standards	• Gold Award for National Quality Project and the title of Classic Project at the Thirtieth Anniversary of National Quality Project Award in 2011 • No. 2 generating unit became one of the first 13 coal-fired power-generating units of environment protection and renovation demonstrative projects approved by National Energy Administration in 2014

Nuclear power

As at 30 June 2021, the total controllable installed capacity of nuclear power stations invested and operated by the Group amounted to 6.98 GW. The Group has six operated nuclear power plants of 1 GW capacity and above. In the first half of 2021, the Group generated nuclear power of 27.4 billion KWh. The Group currently focuses on the construction and development of its coastal projects, which are all located in the east coast in the PRC, and the protection of its inland nuclear plants sites. The Group developed the Passive Nuclear Power industry chain, including research, design, construction, key equipment manufacture, operation and maintenance service. On 28 September 2020, the Group finished developing the third generation of nuclear technology "CAP1400", which is a model engineering project and a landmark independently Chinese-developed nuclear technology intellectual property, which greatly improves the nuclear power industry of China. The Group is the leading enterprise in developing CAP1400. It combined the effort of more than 470 companies and 26,000 technicians, and spent 12 years to finish the researching and developing process. More than 90 per cent. of the key equipment manufacture, key material production, design and general production of CAP1400 is conducted domestically. The CAP1400 can reduce carbon dioxide emission by 9 million tonnes per year, equivalent to the benefit of 1,470 square kilometres of forest. The CAP1400 has the designed life time of 60 years, can reduce the chance of catastrophic incidents, extends the non-manual intervention time to 72 hours, has the brand new control centre design, has self-development Cosine software, and single unit can generate 12 billion KWh per year.

The nuclear power industry chain comprises:

(i) R&D and design (examples of these include the Qinshan nuclear power project ("**NPP**"), the first nuclear power plant in mainland China; Chashma NPP, the first Chinese export of a nuclear power plant; the CAP1400 NPP; the localized AP1000 NPP and other small commercial nuclear reactors;

(ii) engineering construction (such as undertaking EPC of the first AP1000 generating units in the world; undertaking EPC of CAP1400 nuclear power plants; establishing the AP/CAP global procurement platform);

(iii) key equipment manufacturing (such as digital instrument control; nuclear grade zirconium; key equipment such as steel containment vessel;

(iv) plant operation (including the Haiyang NPP and Hongyan River NPP); and

(v) Lifetime services (including lifetime protection services).

Major nuclear power projects controlled or invested by the Group include:

Shandong Haiyang and Rongcheng Nuclear Power Project

Shandong Haiyang Nuclear Power Project is one of the first independently developed projects using the third-generation nuclear power technology in China. Shandong Haiyang Nuclear Power Project was officially launched on 28 December 2009. and is expected to have six sets of AP1000 generating units. of 1,250 MW capacity each. The construction of the first phase, which is undertaken by the Group and constructed by Shanghai Nuclear Engineering Research and Design Institute, consisting of two sets of the generating units, commenced in December 2012 and completed and entered into commercial operation in January 2019. As at 31 December 2020, Haiyang No. 1 and Haiyang No. 2 had total annual power production of 19.05 billion KWh and power production connected to the grid of 17.84 billion KWh. Shandong Rongcheng Nuclear Power Plant has two CAP1400 units currently under construction. Shandong Nuclear Power Company Ltd., in which the Group controlled a 65 per cent. equity interest, is in charge of the design, construction, operation and management of Shandong Haiyang Nuclear Power Project. Haiyang No. 1, an AP1000 generating unit, began fuelling on 21 June 2018, and it first achieved capacity of PWR on 8 August 2018, followed by the steam turbine reaching its rated speed for the first time on 14 August 2018, and then connected to the grid on 17 August 2018. With the worldwide average rating score of 89.5, Haiyang No. 2 was awarded full marks and Haiyang No. 1 was awarded 99 out of 100 by the World Association of Nuclear Operators ("**WANO**"), who adopts a set of composite indicators for measuring the overall performance of nuclear power plants, covering such as nuclear and radiation safety, equipment reliability, operation effectiveness and industrial safety, in terms of the overall performance with 398 commercially operating nuclear generating units worldwide participated in 2020. Haiyang No. 2, an AP1000 generating unit, began fuelling on 8 August 2017 and recorded the shortest completion period for the first time refueling and overhaul of the PWR under commercial operation in the world in 2020 (32.78 days). Currently, the No. 1 to 2 AP1000 generating units have already been in operation and the No. 3 to 4 CAP1000 generating units have completed the preparation for construction, currently awaiting approval from the government to commence the construction. The Haiyang No. 5 and No. 6 are currently in the preparation stage. By end of 2020, the No. 1 to 2 AP1000 generating units had completed refueling and overhaul for the first time and maintained operating in a good condition. The annual power generation of Shandong Haiyang Nuclear Power Plant reached 19.05 billion KWh in 2020.

Liaoning Hongyan River Power Project

Liaoning Hongyan River Power Project has two phases: the first phase comprising No. 1 to 4 generating units is adopting CPR1000 nuclear power technology, and the second phase comprising No. 5 to 6 generating units is adopting ACPR1000 nuclear power technology. Each set of the above generating units has a capacity over 1,000 MW. The No. 1 to 4 generating units have already been in operation and generated on-grid power of 32.7 billion KWh in 2020. The No. 5 to 6 generating units are in the commissioning phase, and each of them is expected to have a capacity of over 1,000 MW. Liao Ning Hong Yan He Nuclear Power Co., Ltd., in which the Group owns a 45 per cent. equity interest, is in charge of the design, construction, operation and management of Liaoning Hongyan River Power Project.

Zhejiang Sanmen Nuclear Power Project

Zhejiang Sanmen Nuclear Power Project was officially launched on 19 April 2009, and is excepted to have six sets of AP1000 generating units of 1,250 MW capacity each. The Group undertakes the EPC of the first phase, consisting of two sets of the generating units, completed and entered into commercial operation in November 2018. San Men Nuclear Power Company, Ltd., in which the Group held a 14 per cent. equity interest, is in charge of the design, construction, operation and management of Zhejiang Sanmen Nuclear Power Project. Sanmen No. 1, the world's first AP1000 generating unit, began fuelling on 25 April 2018, achieved first capacity of PWR on 21 June 2018, followed by the steam turbine reaching its rated speed for the first time on 27 June 2018, and then connected to the grid on 30 June 2018. Sanmen No. 1 was awarded full marks by WANO in terms of the overall performance with 403 commercially operating nuclear generating units worldwide participated in 2019. By the end of 2019, the No. 1 to 2 generating units had connected to the grid for the first time and been commercially operated. By end of 2019, the No. 1 generating unit had completed refueling and overhaul for the first time and maintained operating in a good condition. The No.1 generating unit has completed the second time refueling and maintenance. The No. 3 to 4 CAP1000 generating units have completed the preparation for construction, currently awaiting approval from the government to commence the construction. In 2020, the annual power generation of all six units reached 18.9 billion KWh with on grid annual power generation of 17.5 billion KWh.

Hydropower

By the end of 2020, the total controllable installed capacity of the hydropower plants invested and operated by the Group amounted to 24.01 GW, including domestic hydropower plants with controllable installed capacity amounted to 21.66 GW and overseas controllable installed capacity of 2.34 GW. The Group has controllable installed capacity under construction of 0.75 GW and reserve controllable installed capacity of 8.84 GW domestically, and controllable installed capacity under construction of 9.40 GW and reserve controllable installed capacity of 12.1 GW domestically. As at 30 June 2021, the total controllable installed capacity of the hydropower plants invested and operated by the Group amounted to 23.99 GW. The Group ranks as one of the top ten enterprises worldwide, in terms of installed hydropower capacity. The Group has hydropower asset located in 23 provinces, and is the main developer for two of the 13 large hydropower bases, the upstream Yellow River and Xiangxi. The Group is also expanding its hydropower business in Australia, South America and Myanmar. In first half of 2021, the Group generated hydropower of 43.5 billion KWh. The Group developed hydropower bases of the upstream Yellow River and the Xiangxi region, of which 10 cascade plants of the upstream Yellow River are completed with total controllable installed capacity of 17 GW and 13 cascade plants of the Xiangxi region are completed with total controllable installed capacity of 4 GW. The Group is a national leader in the centralised control operation of hydropower. The Group's hydropower plants in the Xiangxi region have achieved automation, information and intelligence operation.

The following table sets out a summary of certain details of the illustrative hydropower projects of the Group.

Project Name	Controllable Installed capacity	Annual average power generation	Descriptions
Longyang Gorge Station	1,280 MW	6 billion KWh	• the first large cascade hydropower station in the Longqing section of the upstream Yellow River in China • with the largest reservoir capacity in the Yellow River
Laxiwa Project	4,200 MW	10.2 billion KWh	• with the highest dam, the largest installed capacity and the largest power generation in North China
Lijia Gorge Station	2,000 MW	5.9 billion KWh	• the third large cascade hydropower station in the Longqing Section of the upstream Yellow River • won the "Luban Prize" and is the world's largest hydropower station installed with double-row generating units • No. 4 generating unit adopts new evaporative cooling technology, which is the first trial in China
Gongbo Gorge Station. .	1,500 MW	5.14 billion KWh	• the fourth large cascade hydropower station in the Longqing Section of the upstream Yellow River • a sample project in China's hydropower construction industry
Wuqiangxi Station	1,200 MW	5.3 billion KWh	• the largest hydropower station in Hunan Province • named as "National Top-level Hydropower Plant" in September 2000
Sanbanxi Station.	1,020 MW	2.4 billion KWh	• a national key engineering construction project
Changzhou Station	630 MW	3.27 billion KWh	• Known as the "Three Gorges Project" power stations installed with bulb tubular type hydraulic generating units, with the longest dam, large units in both size and numbers, as well as its gigantic lock
Jishi Gorge Station	1,020 MW	3.36 billion KWh	• China's first soft rock concrete dam with penstock buried under the dam

Wind power

The Group was one of the largest wind power generators in China with the total controllable installed capacity of 30.88 GW by the end of 2020, ranking No. 2 in the world in terms of total controllable installed capacity. In 2020, the Group newly installed wind power generators with the capacity of 11.56 GW, exceeded the accumulated controllable installed capacity for the year from 2016 to 2019. As at 30 June 2021, the total controllable installed capacity of wind power generated invested and operated by the Group amounted to 33.03 GW. In the first half of 2021, the Group generated wind power of 37.3 billion KWh. The Group is also one of China's first entities to engage in wind power design and has the advanced capabilities and qualifications in wind resource assessment, and wind farm design, construction and maintenance. The Group's wind farms are located in 25 provinces in the PRC, including Qinghai, Gansu, Inner Mongolia and Jiangsu, among which the total controllable installed capacity of Sanbei Area (including Dongbei, Huabei and Xibei of China) has reached to 17,210 MW, as well as overseas in Mexico, Kazakhstan, Australia, Chile, Vietnam and Brazil. The Group is actively promoting the construction of large-scale onshore wind power bases, coastal regions and offshore wind power. The Group is developing the world's largest single wind power base – Ulanqab 6 GW wind power project, Guangdong Jieyang offshore wind power base, and East H4 and H7 offshore wind power projects. Jiangsu Binhai H1 offshore wind power won the industry's first national high-quality project gold award.

By the end of 2020, the Group had 363 operating wind power plants and 15,596 wind turbines with total controllable installed capacity of 30.88 GW, accounted for 17.52 per cent. of the total controllable installed capacity, ranked No. 2 nationally.

The following table sets out a summary of certain details of the illustrative wind farms of the Group.

Gansu Jiuquan Gobi Wind Power Project

The Group substantively completed 6 million-kilowatt new energy bases in Qinghai, Hainan and Haixi, Gansu Jiuquan, Xinjiang Hami, Yunnan Chuxiong, Ningxia Zhongwei, among others, achieving a milestone in industrial scale development.

Yunnan Chuxiong Dagua Mountain and Dahuang Mountain Projects

Yunnan Chuxiong Daguashan 300,000 KW wind power project and Dahuangshan 286,000 KW wind power projects had planned wind power development and environmental protection as a whole. The road planting of wind turbines is harmonious and friendly to the natural environment. The planting of unique plants on the wind turbine were centrally planned to ensure a harmonious development of wind farms and protection of mountainous areas.

Jiangsu Binhai North Offshore Hydropower Projects

The Binhai North Region H1 Offshore Wind Power Project has the controllable installed capacity of 100 MW and completed in May 2016. It is the first 100,000-kilowatt offshore wind power project to be completed and put into operation in China, and its project cost is leading domestically. Binhai North Region H2 Offshore Wind Power Project has the planned installed capacity of 400 MW and completed in June 2018. Binhai North H3 Offshore Wind Power Project has planned installed capacity of 300 MW and fully connected to the grid in 2020.

PV power

By the end of 2020, the total controllable installed capacity of PV power plants invested and operated by the Group amounted to 29.61 GW, ranking No. 1 in the world for four consecutive years in terms of total controllable installed capacity. As at 30 June 2021, the total controllable installed capacity of PV power plants invested and operated by the Group amounted to 33.26 GW. In 2020, the Group generated PV power of 32.1 billion KWh and the newly controllable installed capacity increased by 10.32 GW. In the first half of 2021, the Group generated PV power of 22.6 billion KWh. By the end of 2020, the Group had 390 PV power plants located in 30 provinces and autonomous regions in the PRC, such as Qinghai, Xinjiang, Hebei, Suzhou and Gansu, as well as overseas in Japan, Australia, Mexico, Vietnam. The Group established large scale energy bases in Jiuquan, Gonghe, Golmud, Hami and Yancheng. The Group also has the sole 10 GW-class hybrid hydro-wind-solar project in the world under construction. The Group believes that it has the most advanced development capacity of PV power plants over the country and a complete PV industry chain, covering sci-tech research and development, poly-Si and PV cell component manufacturing, planning and design, engineering construction, production and operation and training. The following table sets out a summary of certain details of the illustrative PV power projects of the Group.

Qinghai Longyangxia Hydro-Photovoltaic Complementary Photovoltaic Power Station

The project has an controllable installed capacity of 850,000 kilowatts and utilizes the complementarity of hydropower and solar energy, and relies on the rapid adjustment capability of Longyangxia Hydropower Station to compensate for the active output of photovoltaic power stations and improve the power quality of photovoltaic power generation.

Qinghai Golmud Photovoltaic Power Station

With an controllable installed capacity of 640,000 kilowatts, this Project is currently the world's earliest and largest single-use power station. The project is located in the Gobi Desert of Gobi.

Jiangsu Jianhu Fishing and Photovoltaic Complementary Photovoltaic Power Station

With an controllable installed capacity of 66,000 kilowatts, large-scale grid-connected photovoltaic power stations will be constructed using some local lakes and beaches and fish ponds. Multi-use of one place promotes increase in agricultural and fishery income, and enhances comprehensive land utilisation efficiency.

Jiangxi Leping Agricultural (Forest) Photovoltaic Complementary Photovoltaic Power Station

This project plans to develop and construct 70,000 kilowatts in two phases, without changing the original nature of the land, by extending the growth period of crops, improving the quality of crops, increasing agricultural income through multiple uses of one site, reducing power generation costs, and improving comprehensive land utilisation efficiency.

Distributed photovoltaic power station project

The Zhejiang Anji Huafei Renewable Resources 1.5 MW Roof Distributed Photovoltaic Power Generation Project uses building-integrated photovoltaics to replace traditional industrial factory roofs, adopts a system of self-generated and self-used electricity, where surplus electricity to go back to the grid to provide owners with preferential green power, and expand photovoltaic power generation for use in cities to reduce the electricity expenses of the owner's enterprise.

Overseas power assets and investment

In line with its internationalisation strategy, the Group is also actively expanding in the overseas power generation market. By the end of 2020, the Group's overseas assets reached RMB93 billion. The Group's overseas projects are located in 46 countries and regions, including projects in operation with a total controllable installed capacity of 6.06 GW, with 70 per cent. of clean energy, and projects under construction with a total controllable installed capacity of over 1.63 GW, and including 37 countries situated in the "Belt and Road" initiative region.

The Group's endeavours in its overseas business development have led to various achievements in different regions:

The following illustrates the Highlights of the Group's international operation:

- *Chile*: by the end of 2020, the Group was one of the largest Chinese company in Chile, who owned five hydropower plants and one wind power plant with the total controllable installed capacity of 572.0 MW.

- *Australia*: by the end of 2020, the Group held 100 per cent. equity interest in Pacific Hydro Pty Ltd. with a total controllable installed capacity of clean energy of 664 MW.

- *Brazil*: by the end of 2020, the Group held the concession right of operation of the São Simão Hydropower Station in Brazil with a total controllable installed capacity of 1,710 MW.

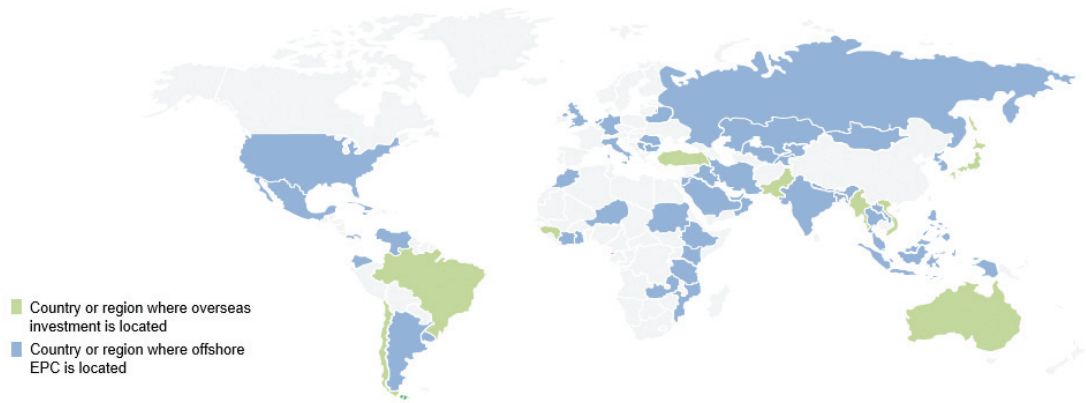
- *Malta*: by the end of 2020, the Group had invested in the largest state-owned energy enterprise in Malta and was the holding company of its third power plant, Delimara 3, whose total controllable installed capacity reached 153.0 MW.

- *Japan*: by the end of 2020, the Group was the largest Chinese power generation company in Japan, who owned three PV power plants with a total controllable installed capacity of 39 MW.

- *Mexico*: by the end of 2020, the Group had acquired Zuma Energia S.A. de C.V., owned wind power total controllable installed capacity 474.0 MW and PV power with total controllable installed capacity of 344.0 MW, in total 818.0 MW.

The Group's overseas operation in Montenegro, Pakistan, Myanmar and Vietnam have total controllable installed capacity of 46 MW, 1,320 MW, 99 MW and 526 MW, respectively.

The below diagram illustrates the Group's layout of overseas investment and business operation:



Electricity sale

Revenue of the Group's power business is primarily derived from the sale of electricity generated from the Group's power plants. According to relevant PRC regulations, a power plant's sole customer is the relevant grid company to which it is connected. The Group's power plants are connected and sell electricity to the grid company located in the same region. On-grid tariffs of the planned output of the Group's power plants are reviewed and determined by the relevant pricing authorities, taking into account various factors including the construction costs and fuel cost.

The table below sets forth the Group's average on-grid tariff for electricity from the Group's power plants in the PRC for the periods indicated.

	Year ended 31 December		
	2018	2019	2020
		(RMB per KWh)	
Average on-grid tariff (excluding VAT)	0.343	0.349	0.346

Apart from the Group's planned output, the Group's power plants also sell electricity generated in excess of the planned output, by way of bilateral trading output, competitive bidding output and substituting generation output. Bilateral trading output allows an electricity generation company to directly negotiate with and sell its electricity to licensed large customers. Competitive bidding output is an excess output mechanism to meet increased demand for electricity within a specific area covered by a particular grid company whereby such grid company invites electricity generation companies to tender bids to sell their excess output, which such grid company purchases from the winner and sells to customers. Substituting generation allows an electricity generation company to sell its electricity to other power generating companies (substituting the seller's excess output as the buyer's planned output).

Repair and maintenance

The Group's power plants have timetables for routine maintenance, regular inspections and repairs. Such timetables and the repair and maintenance are established by each plant pursuant to the relevant regulations. The Group's maintenance procedures are reasonably scheduled and coordinated to support stable power generation and high reliability of facilities.

Heating Business

Some of the Group's generating units are combined heat and power cogenerating units whereby the generation of electric energy produces heat as a by-product. The Group mainly supplies heat to industrial, commercial and residential customers located within their proximity. The simultaneous production of electricity and heat increases the Group's efficiency of energy conversion and use, provides additional competitiveness and diversifies the Group's revenue sources. In order to secure supplies for heat, local governments usually prioritise the operation of cogenerating units during the peak season with high demand for heat through measures, which improves the utilisation rate of the Group's generating units.

Revenue from the Group's heating business for the three years ended 31 December 2018, 2019 and 2020 amounted to RMB8,411.4 million, RMB7,298.5 million and RMB6,758.5 million, respectively, accounting for approximately 3.8 per cent., 2.7 per cent. and 2.4 per cent., respectively, of its total revenue during the same period.

Coal Business

By the end of 2020, the Group had coal production capacity of 84.3 million tonnes. The Group operates eight coal mines, among which five are open cast mines with total annual production capacity of approximately 81.0 million tonnes and three are shaft coal mines with total annual production capacity of approximately 3.3 million tonnes. Coal resources provide a sound guarantee for the supply of the Group's coal-fired power plants located within their proximity, and the Group is actively promoting coal-electricity synergy and joint operation. In 2020, approximately 70 per cent. of the coal consumed by the Group's coal-fired power plants in greater north-eastern China region was supplied by the Group internally and the sales volume of coal amounted to 79.6 million tonnes, and there are 5.1 billion tonnes of coal reserves.

Revenue from the Group's coal business for the three years ended 31 December 2018, 2019 and 2020 amounted to RMB5,967.5 million, RMB5,407.3 million and RMB6,177.0 million, respectively, accounting for approximately 2.6 per cent., 2.0 per cent. and 2.2 per cent., respectively, of its total revenue during the same period.

Aluminium Business

By the end of 2020, the Group's electrolytic aluminium production capacity reached 2.45 million tonnes, mainly spread across resource-rich and energy-rich areas of eastern Inner Mongolia, Ningxia, and Qinghai, and the Group's alumina production volume reached 3.90 million tonnes, mainly spread across Shanxi. The reserves of bauxite resources is around 1.9 billion tonnes, mainly in Guinea, Guizhou and Shanxi. Through the combination of and synergy among the coal-fired or wind power, hydropower and aluminium industry chains, the Group has reduced production costs and improved the efficiency of its resources utilisation. The Group's alumina products include aluminium alloy ladder and aluminium alloy solar PV support bracket systems, among other things. Through scientific and technological innovation system, the application of aluminium business and related products can effectively support the technological improvement of the power generation business (such as wind power and PV power), improve the efficiency of the core power industry, reduce production costs, and improve utilisation efficiency. An example of the aluminium business project is the Anhui Yuguang Complementary PV Power Plant Project. Revenue from the Group's aluminium business for the three years ended 31 December 2018, 2019 and 2020 amounted to RMB36,984.2 million, RMB57,069.8 million and RMB54,014.3 million, respectively, accounting for approximately 16.3 per cent., 20.9 per cent. and 19.4 per cent., respectively, of its total revenue during the same period.

Other Business

The Group's other business segment mainly include financial businesses such as deposit and loan services, insurance brokerage, trust, futures, financial leasing, factoring, funds and assets management, providing services to industrial entities within the Group to lower the Group's financing costs and risks. The Group engages in financial business through its subsidiaries including SPIC Capital Holding Co., Limited.

Revenue from the Group's other business for the three years ended 31 December 2018, 2019 and 2020 amounted to RMB22,725.8 million, RMB20,599.6 million and RMB21,434.4 million, respectively, accounting for approximately 10.0 per cent., 7.6 per cent. and 7.7 per cent., respectively, of its total revenue during the same period.

Ancillary Business

Apart from the five principal business segments above, some members of the Group also operate in ancillary businesses, including sales of materials, transportation, processing and repair of facilities and equipment for power plants, lease of fixed assets, entrusted operation of power generation, employee training, electricity power transmission, clean development mechanisms (CDM), garbage disposal and transport subsidies, among others. The Group's ancillary business supports the integration of all business segments and the development of clean energy.

Revenue from the Group's ancillary businesses for the three years ended 31 December 2018, 2019 and 2020 amounted to RMB4,651.7 million, RMB5,167.7 million and RMB6,055.8 million, respectively, accounting for approximately 2.1 per cent., 1.9 per cent. and 2.2 per cent., respectively, of its total revenue during the same period.

Environmental protection

Industry-leading environmental protection technology helps the Group to be independent in outsourcing environmental protection services, to reduce costs, and to create synergies and economic profits at the same time. It involves general contracting of desulphurisation, denitrification and dust removal projects, desulphurisation and denitrification franchise, denitrification catalyst manufacturing and regeneration, dust collector manufacturing, water treatment, nuclear power plant radioactive waste treatment and nuclear waste disposal site construction, energy conservation and other fields, covering the entire country. Some regions and countries such as India and Turkey.

RAW MATERIALS AND SUPPLIERS

The Group's major suppliers include fuel suppliers (including coal, gas, oil and nuclear fuel), project construction service providers, technical services providers and mechanical and electronic equipment suppliers. Fuel costs represent the majority of the operating expense for the Group.

EMPLOYEES

As at 31 December 2020, the Group had approximately 119,000 employees. The Group considers its relationship with its workforce to be good and the Group has not experienced a work stoppage or strike. In accordance with regulations applicable to enterprises and the relevant requirements of various local governments in areas in which the Group operates, the Group makes contributions to the pension contribution plan, employees' medical insurance, unemployment insurance, maternity insurance and workers' compensation injury insurance.

INTELLECTUAL PROPERTY

The Group places great importance on the creation, application, management and protection of its intellectual property rights. Through research and development and its ordinary course of business, the Group has obtained various intellectual property rights that are valuable to its business. The Group protects and will continue to seek to protect these intellectual property rights through copyrights, patents, trademarks and contractual rights. As at 31 December 2020, the Group had achieved 335 international and national industry technical standards, obtained 6,874 authorised patents in the PRC, and established 837 technical standards. As at 31 December 2020, the Group has received 445 national, provincial and ministerial level technology awards.

HEALTH AND SAFETY COMPLIANCE

The Group's business operations, particularly the Group's power generation business, involve risks and hazards that are inherent in such activities. These risks and hazards could result in damage to, or destruction of, property or production facilities, personal injury, environmental damage, business interruption and possible legal liability. Nuclear power stations face special safety challenges because while generating electricity, nuclear power stations also produce radioactive by-products, which carry with them risks including personal injury, property damage and environmental contamination. All of the Group's power plants, power stations and wind farms have adopted various internal policies and taken protective measures to prevent health and safety risks and hazards in accordance with national standards, and the Group believes its nuclear safety policy comprises a myriad of measures to protect personnel, environment and society from possible radioactive hazards throughout the life cycle of a nuclear power generating unit. The Group's power plants, power stations or wind farms have not encountered any material unplanned outages due to health and safety issues.

ENVIRONMENTAL REGULATION

The Group is committed to conducting the Group's operations in a manner that complies with applicable environmental laws and regulations, and endeavours to mitigate the adverse effect of the Group's operations on the environment. The Group's operations are currently subject to environmental laws and regulations relating to the construction and operation of power generation facilities and power plants, noise control, air and water emissions, water and ground protection, hazardous substances, radioactive by-products and waste management. The Group has implemented a system that is designed to control pollution caused by the Group's power plants, including the establishment of an environmental protection and supervision department at each power plant, adoption of relevant control and evaluation procedures, and the installation of certain pollution control equipment. The Group operates under a number of licences and authorisations that are related to environmental regulations. The Group requires all of its members to comply with applicable environmental regulations in the relevant jurisdictions in which it operates. As at the date of this Offering Circular, the Group is not aware of any environmental proceedings or investigations to which it is or might become a party that could have a material adverse effect on its business, financial condition or results of operations.

INSURANCE

The Group's assets are covered by insurance with reputable insurance companies, such as property all-risk insurance, machinery breakdown insurance, and contractors/erection all-risk insurance. The Group's insurance policies are reviewed on a regular basis.

Consistent with what the Group believes to be a customary practice in the PRC, certain members of the Group carry third party liability insurance to cover claims in respect of personal injury, property or environmental damages arising from accidents on the Group's property or relating to the Group's operations, while the Group does not carry any business interruption insurance. The Group believes that the insurance coverage of the power plants, power stations and wind farms within the Group's insurance coverage is adequate and is standard for the power industry in the PRC. See "*Risk Factors – Risks Relating to the Group's Business and the Power Industry – Operation of power plants involves many risks, and the Group may not have adequate insurance to cover the economic losses if any of the Group's power plants' ordinary operations is interrupted*."

LEGAL, COMPLIANCE AND PROCEEDINGS

The Group is from time to time involved in legal proceedings arising in the ordinary course of its business, including as plaintiff or defendant in litigation or arbitration proceedings. To the best of the Group's knowledge, there are no current, pending or threatened litigation, arbitration or other proceedings against the Group that could have a material adverse effect on its businesses, financial condition or results of operations.

DIRECTORS AND SENIOR MANAGEMENT

DIRECTORS

The members of the Board of Directors of the Company as at the date of this Offering Circular are as follows:

Name	Year of Birth	Position
Qian Zhimin (錢智民)	1960	Chairman, Communist Party Group Secretary
Jiang Yi (江毅)	1962	Director, General Manager
Zu Bin (祖斌)	1968	Director, Communist Party Deputy Group Secretary
Lu Chun (盧純)	1955	External Director
Zhu Hongjie (朱鴻傑)	1954	External Director
Liu Deheng (劉德恆)	1957	External Director
Yang Qingting (楊清廷)	1962	External Director
Nie Xiaofu (聶曉夫)	1957	External Director
Li Houxin (李厚新)	1968	Employee Representative Director

Mr. Qian Zhimin, born in 1960, is a graduate of Shanghai Jiao Tong University majoring in nuclear power engineering and is a master's degree holder in engineering and a senior engineer equivalent to researcher level. He previously served as the Chairman of the Board and Communist Party group secretary of China Guangdong Nuclear Power Holding Co., Ltd. (中國廣東核電集團有限公司), the Deputy Director and a Communist Party group member of the National Energy Administration of the People's Republic of China (國家能源局) and appointed as the General Manager and Communist Party group deputy secretary of China National Nuclear Corporation (中國核工業集團公司). Mr. Qian is currently the Chairman of the Board and the Communist Party group secretary of the Company and an alternate member of the 18th and 19th Central Committee of the Communist Party of China. He is also in charge of Corporate Governance, Corporate Culture, Human Resources and the Auditing Department.

Mr. Jiang Yi, born in 1962, is a graduate of Tsinghua University majoring in electric power system and automation studies, and is a master's degree holder in engineering and a qualified senior engineer. He previously served Guangdong GuangDian Power Grid Group Co., Ltd. (廣東省廣電集團) as its Deputy General Manager and Communist Party Committee member. During his service with Guangdong GuangDian Power Grid Group Co., Ltd., he was concurrently appointed first as General Manager, Communist Party Committee member and Secretary of its Shenzhen Power Supply Branch and later as General Manager of its Guangzhou Power Supply Branch. He was subsequently appointed as the Deputy General Manager and a Communist Party Committee member of Guangdong Power Grid Co., Ltd. (廣東電網公司). During the appointment, he was concurrently Director of Guangdong Power Grid's Guangdong Power Supply Bureau and Communist Party Committee member as well as Deputy Secretary of Guangdong Power Grid's Guangdong Power Supply Bureau later. Afterwards, Mr. Jiang became Head (Personnel), and later Assistant General Manager-cum-Head (Personnel), China Southern Power Grid (中國南方電網). Then, he was appointed as the Director, General Manager and Communist Party Committee member and Secretary of Guangdong Power Grid Co., Ltd. (廣東電網公司), and he later became its Chairman of Board and Communist Party Committee member and Secretary. Mr. Jiang was appointed as the Deputy General Manager and a Communist Party group member, China Southern Power Grid (中國南方電網) subsequently. Mr. Jiang is currently the Director, General Manager and Communist Party group deputy secretary of the Company. He is in charge of the Strategy and Planning, Planning and Finance and the Legal and Business Department; he is also the co-lead of the Auditing Department.

Mr. Zu Bin, born in 1968, graduated from Hong Kong Polytechnic University, is a masters degree holder and is a senior engineer equivalent to researcher level and senior political worker equivalent to professor level. Mr. Zu previously worked as the Chairman of the Board, General Manager, Deputy General Manager and the Secretary of the CPC committee of China Nuclear Industry Huaxing Construction Co. Ltd (中國核工業華興建設有限公司) and the Manager of Qinshan III Project (秦山三期項目), the Assistant General Manager, Deputy General Manager, a Communist Party group member, Communist Party group deputy secretary, Chief Legal Officer, President and Chairman of the Board of China Nuclear Engineering & Construction Group Corporation Limited (中國核工業建設集團公司) and the Chairman of the Board of China Nuclear Energy Technology Corporation Limited (中核能源科技有限公司), the Director and Communist Party group deputy secretary of China National Nuclear Corporation (中國核工業集團有限公司). Mr. Zu currently serves as the Director and Communist Party group deputy secretary of the Company. He is in charge of the General Office and the Promotion and Labor Union Department; he is also the co-lead in the Corporate Culture and Human Resources Department.

Mr. Lu Chun, born in 1955, has a master's degree. Mr. Lu previously worked as the Director and the Deputy Director of the Planning and Finance Department, Chief of Staff, the Deputy Secretary of the Party Committee of the organ, the Deputy Secretary of Inspecting Discipline Committee of the Communist Party group and Member of the Communist Party group for the Immigration Development Bureau of the Three Gorges Project Construction Committee of the State Council (國務院三峽工程建設委員會移民開發局). Mr. Lu was the Deputy Secretary of the Communist Party group, Member of the Communist Party group and the Deputy Director of the Office of the Three Gorges Project Construction Committee of the State Council (國務院三峽工程建設委員會辦公室), the Commissioner and the Deputy Director of the Three Gorges Project Construction Committee of the State Council (國務院三峽工程建設委員會), the Chairman of the Board of Directors and the Director of the Communist Party group of the China Three Gorges Corporation (中國長江三峽集團). Mr. Lu currently serves as a Member of the Standing Committee of the 13th National Committee of the Chinese People's Political Consultative Conference (第十三屆全國政協常委), a Member of the Population, Resources and Environment Committee (人口資源環境委員會), and an External Director of the Company.

Mr. Zhu Hongjie, born in 1954, has a bachelor's degree. Mr. Zhu previously worked as the Director and Deputy General Director of Planning and Finance Department of Ministry of Foreign Trade and Economic Cooperation (對外貿易經濟合作部計劃財務司), the General Manager of the Planning Treasury Department (計劃資金部), the General Manager of the Concessional Loan Department (對外優惠貸款部), the General Manager of the Supplier's Credit Department I (賣方信貸一部), and Assistant to the President and the Vice President in the Export-Import Bank of China. Mr. Zhu currently serves as an External Director of the Company.

Mr. Liu Deheng, born in 1957, has a master's degree. Mr. Liu previously worked as the Deputy Director of the Integrated Department of the State Economic and Trade Commission (國家經貿委綜合司), the Deputy Director of the SASAC Statistics and Evaluation Bureau (Asset and Capital Verification Office) (國資委統計評價局(清產核資辦公室)), the Director and the Deputy Director of the Revenue Management Bureau (收益管理局), a Full-time External Directors of Pilot Central Enterprises (中央企業專職外部董事), an External Director of the Commercial Aircraft Corporation of China, Ltd. (中國商用飛機有限責任公司), an Independent Director of the Air China Limited (中國國際航空股份有限公司) and an External Director of the Aviation Industry Corporation of China, Ltd. (中國航空工業集團有限公司). Mr. Liu currently serves as an External Director of the Company.

Mr. Yang Qingting, born in 1962, has an on-the-job master's degree. Mr. Yang previously worked as the Director and the Deputy Director of the Biotech Division, a Member of the Party Committee, the General Manager Assistant, and the General Manager of the Power Generation Division of the Sichuan Electric Power Industry Bureau (四川省電力工業局), the Director of the Baozhusi Hydropower Plant (寶珠寺水力發電廠), a Member of the Communist Party group and the Deputy Director of the Tibet Electric Power Co., Ltd. (西藏電力有限公司), the General Manager and the Secretary of the Communist Party group of the

Huadian Sichuan Electric Power Co., Ltd. (華電四川公司), the General Manager and the Secretary of the Communist Party group of the Huadian Sichuan Electric Power Co., Ltd. (the Huadian Sichuan Power Generation Co., Ltd. and the Huadian Jinshajiang Upstream Hydropower Development Co., Ltd.) (華電四川公司(華電四川發電有限公司、華電金沙江上游水電開發有限公司)), the Chairman of the Huadian Jinshajiang Upstream Hydropower Development Co., Ltd. (華電金沙江上游水電開發有限公司), the General Manager of the China Huadian Corporation Tibet Branch (華電西藏分公司), the General Manager Assistant, the Director of the Strategic Planning Division, a Member of the Communist Party group and the Deputy General Manager of the China Huadian Corporation (中國華電集團公司). Mr. Yang is currently serves as a Full-time External Director of Pilot Central Enterprises (中央企業專職外部董事), an External Director of the Company and an External Director of the China Coal Technology Engineering Group (中國煤炭科工集團有限公司).

Mr. Nie Xiaofu, born in 1957, has a bachelor's degree. Mr. Nie previously worked as the General Manager of the China North Industries Group Corporation Limited Southwest Technology Development Corporation (中國兵器工業總公司西南兵工局科技開發公司), the General Manager of the Wanyou Import and Export Corporation (萬友進出口公司), the Deputy Director of the Chongqing Dajiang Vehicle Factory (重慶大江車輛總廠), the Deputy Director of the China North Industries Group Corporation Limited Southwest Military Engineering Bureau (西南兵工局), the Director of the Economic Operation Division, a Member of the Communist Party group and the Deputy General Manager of the China South Industries Group Corporation (中國兵器裝備集團有限公司). Mr. Nie currently serves as an External Director of the Aluminium Corporation of China Limited (中國鋁業集團有限公司) and an External Director of the Company.

Mr. Li Houxin, born in 1968, has a master's degree. Mr. Li previously worked as the Deputy Director of the General Manager Office of the China National Water Conservancy & Hydroelectric Engineering Co. (中國水利水電工程總公司), the Director of the Party Building Office, the Secretary of Youth League Committee and the Deputy Director of the Supervision Department of the China Power Investment Corporation (中國電力投資集團), the Deputy Director of the Communist Party group, the Chief of the Inspecting Discipline Committee and the Director of the Working Committee of the Sichuan Electric Power Corporation (四川省電力公司), and a Full-time Director and Supervisor, and the Head of the Communist Party Inspection Group of the Company. Mr. Li currently serves as the Employee Representative Director, the Director of the Party Working Committee, the Deputy Director of the Group's Party Working Committee, and the Chairman of the Group's Agency Union of the Company.

SENIOR MANAGEMENT

The members of the senior management of the Company as at the date of this Offering Circular are as follows:

Name	Age	Position
Qian Zhimin (錢智民)	1960	Chairman, Communist Party Group Secretary
Jiang Yi (江毅)	1962	Director, General Manager
Chen Weiyi (陳維義)	1962	Head of the Discipline Inspection Group
Zu Bin (祖斌)	1968	Director, Communist Party Deputy Group Secretary
Liu Mingsheng (劉明勝)	1969	Deputy General Manager
Chen Xi (陳西)	1972	Chief Accounting Officer
Xu Shubiao (徐樹彪)	1972	Deputy General Manager

For Mr. Jiang Yi's experiences, please see "– *Directors*" in this section.

Mr. Qian Zhimin, for details of Mr. Qian, see "– *Directors*" above.

Mr. Chen Weiyi, born in 1962, is a doctorate degree holder. Mr. Chen previously served as Vice Chairman and a Communist Party group member of Shandong Provincial Federation of Trade Unions, Director (山東省總工會); the Communist Party group secretary and Director of Shandong Provincial Bureau for Complete Plants of Machinery and Equipment (山東省機械設備成套局); Standing Deputy Secretary of CPC committee and Secretary of Discipline Inspection of CPC Committee, Deputy Secretary-General, a member of Standing Committee and Director of General Office of Party Documents Research Office of the CPC Central Committee (中央文獻研究室); a member of Standing Committee of Party History and Documents Research Office of the CPC Central Committee (中央黨史和文獻研究院). Mr. Chen is currently the Leader of the CPC Committee Discipline Inspection Commission and a Communist Party group member of the Company. He is also in charge of the Party Inspection Office.

Mr. Zu Bin, for details of Mr. Zu, see "– *Directors" above.*

Mr. Liu Mingsheng, born in 1969, has a master's degree. Mr. Liu previously served as the Deputy Director of Planning and Development Department of State Power Investment Corporation Limited (中國電力投資集團公司), the Deputy General Manager, Secretary of CPC committee and Chairman of the Board of State Power Investment Corporation Limited East Mongolia Energy Group Limited (中電投蒙東能源集團有限責任公司), the Deputy General Manager, Secretary of CPC committee and Chairman of the Board of Inner Mongolia Xilin Gol Baiyinhua Coal & Power Co. Ltd (內蒙古錫林郭勒白音華煤電有限責任公司), the Communist Party group secretary and Chairman of the Board of West Mongolia Energy Group Limited (蒙西能源集團有限責任公司), the Secretary of the CPC committee and Executive Director of State Power Investment Corporation Limited Inner Mongolia Branch (國家電力投資集團有限公司內蒙古公司), the Secretary of CPC committee and Chairman of the Board of Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia (露天煤業). Mr. Liu currently as a Communist Party group member and the Vice President of the Company. He is in charge of international business, science technology and innovation and the Safety, Quality and Environmental Protection Department, as well as the Digital Centre.

Mr. Chen Xi, born in 1972, graduated from Renmin University of China majoring in accounting and is a bachelor's degree holder in economics and is an Masters of Business Administration holder. Mr. Chen previously served as the Director of Comprehensive Division of Finance Department of Huaneng Power International Inc. (中國華能國際電力股份有限公司), the Office Manager and Director of Budget department of Tuas Power Generation Pte Ltd of Huaneng Power International Inc. (中國華能國際電力股份有限公司大士電力), the General Manager and Communist Party group deputy secretary of China Huaneng Group Hong Kong Limited (中國華能集團香港有限公司). Mr. Chen is a qualified senior accountant. Mr. Chen currently serves as a Communist Party group member and the Chief Financial Officer of the Company. He is also in charge of the Capital Operations Department and Fuel Management Center; he is also the co-lead of the Planning and Finance Department.

Mr. Xu Shubiao, born in 1972, has an engineering master's degree and a senior engineer. Mr. Xu previously served as the Manager of the General Department and the Manager of the Planning Department of the Guangxi Changzhou Hydro Power Development Co., Ltd. (廣西長洲水電開發有限責任公司), the Deputy General Manager, a Member of the Communist Party group and the Assistant of the General Manager of the China Power Investment Corporation Yunnan International Power Investment Co., Ltd. (中電投雲南國際電力投資有限公司), the Chairman of the Board of Directors and the Deputy General Manager of Yijiang Upstream Hydropower Co., Ltd. (伊江上游水電有限責任公司), the Deputy Director of the Hydropower and New Energy Department of the China Power Investment Corporation (中國電力投資集團), the Deputy Director of the Hydropower and New Energy Department of the Company, the Director of the Board, the General Manager and the Deputy Secretary of the Party Committee of the Wu Ling Power Corporation (五凌電力有限公司), the Deputy General Manager and the Deputy Secretary of the Party Committee of the Company's Hunan Branch (國家電投湖南分公司), and the Managing Director and the Secretary of the Party Committee of the SPIC Yunnan International Power Investment Co., Ltd. (國家電投集團雲南國際電力投資有限公司). Mr. Xu currently serves as the Deputy General Manager and a Member of the Communist Party group of the Company. He is in charge of the Development Department, Industry Collaboration & Service Centre and Electric Power Marketing Center. He is also the co-lead of the Strategy and Planning Department.

EXCHANGE RATE INFORMATION

The PBOC, the central bank of the PRC, sets and publishes daily a base exchange rate with reference primarily to the supply and demand of Renminbi against a basket of currencies in the market during the prior day. The PBOC also takes into account other factors, such as the general conditions existing in the international foreign exchange markets. On 21 July 2005, the PRC Government introduced a managed floating exchange rate system to allow the value of the Renminbi to fluctuate within a regulated band based on market supply and demand and by reference to a basket of currencies. On the same day, the value of the Renminbi appreciated by 2 per cent. against the U.S. dollar. The PRC Government has since made and in the future may make further adjustments to the exchange rate system. On 18 May 2007, the PBOC enlarged, effective on 21 May 2007, the floating band for the trading prices in the interbank spot exchange market of Renminbi against the U.S. dollar from 0.3 per cent. to 0.5 per cent. around the central parity rate. This allows the Renminbi to fluctuate against the U.S. dollar by up to 0.5 per cent. above or below the central parity rate published by the PBOC. The floating band was further widened to 1.0 per cent. on 16 April 2012. These changes in currency policy resulted in the Renminbi appreciating against the U.S. dollar by approximately 26.9 per cent. from 21 July 2005 to 31 December 2013. On 14 March 2014, the PBOC further widened the floating band against the U.S. dollar to 2.0 per cent. On 11 August 2015, the PBOC announced to improve the central parity quotations of Renminbi against the U.S. dollar by authorising market-makers to provide central parity quotations to the China Foreign Exchange Trading Centre daily before the opening of the interbank foreign exchange market with reference to the interbank foreign exchange market closing rate of the previous day, the supply and demand for foreign exchange as well as changes in major international currency exchange rates. Following the announcement by the PBOC on 11 August 2015, Renminbi depreciated significantly against the U.S. dollar. On 11 December 2015, CFETS, a sub-institutional organisation of the PBOC, published the CFETS Renminbi exchange rate index for the first time which weighs the Renminbi based on 13 currencies, to guide the market in order to measure the Renminbi exchange rate from a new perspective. In January and February 2016, Renminbi experienced further fluctuations in value against the U.S. dollar. The PRC Government may adopt further reforms of its exchange rate system, including making the Renminbi freely convertible in the future.

The following table sets forth the noon buying rates for U.S. dollars in New York City for cable transfers payable in Renminbi as certified by the Federal Reserve Bank of New York for customs purposes for and as at the periods indicated as set forth in the H.10 statistical release of the Federal Reserve Board.

	Noon Buying Rate			
Period	**Period End**	**Average[(1)]**	**High**	**Low**
	(Renminbi per U.S.$1.00)			
2013	6.0537	6.1412	6.2438	6.0537
2014	6.2046	6.1704	6.2591	6.0402
2015	6.4778	6.2869	6.4896	6.1870
2016	6.9430	6.6549	6.9580	6.4480
2017	6.5063	6.7350	6.9575	6.4773
2018	6.8755	6.6292	6.9737	6.2649
2019	6.9618	6.9014	7.1786	6.6822
2020	6.5250	6.8878	7.1681	6.5208
2021				
January	6.4282	6.4672	6.4822	6.4282
February	6.4730	6.4601	6.4869	6.4344
March	6.5518	6.5109	6.5716	6.4648
April	6.4749	6.5186	6.5649	6.4710

Period	Noon Buying Rate			
	Period End	Average[1]	High	Low
	(Renminbi per U.S.$1.00)			
May	6.3674	6.4321	6.4749	6.3674
June	6.4566	6.4250	6.4811	6.3796
July	6.4609	6.4763	6.5104	6.4562
August	6.4604	6.4768	6.5012	6.4604
September	6.4434	6.4563	6.4702	6.4320
October (up to 22 October)	6.3839	6.4259	6.4485	6.3822

(1) Averages are calculated by averaging the rates on the last business day of each month during the relevant year. Monthly averages are calculated by averaging the daily rates during the relevant monthly period.

TAXATION

The following summary of certain tax consequences of the purchase, ownership and disposition of the Preference Shares is based upon applicable laws, regulations, rulings and decisions in effect as at the date of this Offering Circular, all of which are subject to change (possibly with retroactive effect). This discussion does not purport to be a comprehensive description of all the tax considerations that may be relevant to a decision to purchase, own or dispose of the Preference Shares and does not purport to deal with consequences applicable to all categories of investors, some of which may be subject to special rules. Neither these statements nor any other statements in this Offering Circular are to be regarded as advice on the tax position of any holder of the Preference Shares or any persons acquiring, selling or otherwise dealing in the Preference Shares or on any tax implications arising from the acquisition, sale or other dealings in respect of the Preference Shares. Persons considering the purchase of the Preference Shares should consult their own tax advisers concerning the possible tax consequences of buying, holding or selling any Preference Shares under the laws of their country of citizenship, residence or domicile.

PRC TAXATION

The following summary accurately describes the principal PRC tax consequences of ownership of the Preference Shares by beneficial owners who, or which, are not residents of mainland China for the PRC tax purposes. These beneficial owners are referred to as non-resident Preference Shareholders in this "PRC Taxation" section. In considering whether to invest in the Preference Shares, investors should consult their individual tax advisers with regard to the application of PRC tax laws to their particular situations as well as any tax consequences arising under the laws of any other tax jurisdiction. Reference is made to PRC taxes from the taxable year beginning on or after 1 January 2008.

Pursuant to the EIT Law effective on 1 January 2008, as amended on 24 February 2017, and the PRC Individual Income Tax Law, as amended on 30 June 2011 and effective on 1 September 2011, and their implementation regulations, an income tax is imposed on the interests by way of withholding in respect of the Preference Shares, paid by the Issuer (if such dividends are regarded as income derived from sources within the PRC under the EIT Law and/or the Individual Income Tax Law) to non-resident Preference Shareholders, including non-resident enterprises and non-resident individuals. The current rates of such income tax are 20 per cent. (for non-resident individuals) and 10 per cent. (for non-resident enterprises) of the gross amount of the interest. However, the tax so charged on dividends paid on the Preference Shares to non-resident Preference Shareholders who or which are residents of Hong Kong (including enterprise holders and individual holders) as defined under the Arrangement between mainland China and Hong Kong for Purpose of the Avoidance of Double Taxation will be up to 10 per cent. (up to 5 per cent. if the Preference Shareholders which are residents of Hong Kong directly own at least 25% of the Issuer) of the gross amount of the dividends pursuant to the arrangement between mainland China and Hong Kong and relevant interpretation of the arrangement formulated by the State Administration of Taxation of China.

Under the EIT Law and its implementation rules, any gains realised on the transfer of the Preference Shares by holders who are deemed under the EIT Law as non-resident enterprises may be subject to PRC enterprise income tax if such gains are regarded as incomes derived from sources within the PRC. Under the EIT Law, a "**non-resident enterprise**" means an enterprise established under the laws of a jurisdiction other than the PRC and whose actual administrative organisation is not in the PRC, which has established offices or premises in the PRC, or which has not established any offices or premises in the PRC but has obtained incomes derived from sources within the PRC. In addition, there is uncertainty as to whether gains realised on the transfer of the Preference Shares by individual holders who are not PRC citizens or residents will be subject to PRC individual income tax. If such gains are subject to PRC income tax, the 10 per cent. enterprise income tax rate and 20 per cent. individual income tax rate will apply respectively

unless there is an applicable tax treaty or arrangement that reduces or exempts such income tax. The taxable income will be the balance of the total income obtained from the transfer of the Preference Shares minus all costs and expenses that are permitted under PRC tax laws to be deducted from the income. According to an arrangement between mainland China and Hong Kong for avoidance of double taxation, Preference Shareholders who are Hong Kong residents, including both enterprise holders and individual holders, will be exempted from PRC income tax on capital gains derived from a sale or exchange of the Preference Shares.

On 23 March 2016, MOF and the State Administration of Taxation issued Circular 36, which introduced a new value-added tax ("**VAT**") from 1 May 2016. Under Circular 36, VAT is applicable where the entities or individuals provide services within the PRC. The operating income generated from the provision of taxable sale of services by entities and individuals, such as financial services, shall be subject to PRC VAT if the seller or buyer of the services is within PRC. In the event that foreign entities or individuals do not have a business establishment in the PRC, the purchaser of services shall act as the withholding agent. According to the Explanatory Notes to Sale of Services, Intangible Assets and Real Property attached to Circular 36, financial services refer to the business activities of financial and insurance operation, including loan processing services, financial services of direct charges, insurance services and the transfer of financial instruments, and the VAT rate is 6 per cent. Accordingly, in respect of the interest and other interest like earnings received by a non-PRC resident Preference Shareholder from, if the Issuer is treated as a PRC resident enterprise, the Issuer will be subject to PRC VAT at the rate of 6 per cent. The Issuer will be obligated to withhold VAT of 6 per cent. and certain surcharges on VAT for payments of interest and certain other amounts on the Preference Shares paid by the Issuer to Preference Shareholders that are non-resident enterprises or individuals if the Issuer is treated as a PRC resident enterprise. And as the withholding agent, if the Issuer, the Issuer shall calculate the withholding tax according to the following formula: withholding tax = price paid by the purchaser ÷ (1 + tax rate) × tax rate. Pursuant the Interim Regulation of the PRC on City Maintenance and Construction Tax (中華人民共和國城市維護建設税暫行條例 (2011修訂)), the Interim Provisions on the Collection of Educational Surcharges (徵收教育費附加的暫行規定(2011修訂)) and the Administrative Measures on the Collection and Utilisation of Local Educational Surcharges in Beijing (北京市地方教育附加徵收適用管理辦法), city maintenance and construction tax, educational surcharges and local educational surcharges will be applicable when entities and individuals are obliged to pay VAT (for an aggregate of 12 per cent. on any VAT payable). However, there is uncertainty as to whether gains derived from a sale or exchange of Preference Shares consummated outside of the PRC between non-PRC resident Preference Shareholders will be subject to PRC VAT. VAT is unlikely to be applicable to any transfer of Preference Shares between entities or individuals located outside of the PRC and therefore unlikely to be applicable to gains realised upon such transfers of Preference Shares, but there is uncertainty as to the applicability of VAT if either the seller or buyer of Preference Shares is located inside the PRC. Circular 36 together with other laws and regulations pertaining to VAT are relatively new, the interpretation and enforcement of such laws and regulations involve uncertainties.

No PRC stamp duty will be imposed on non-resident Preference Shareholders either upon issuance of the Preference Shares or upon a subsequent transfer of Preference Shares.

CAYMAN ISLANDS TAXATION

Under existing Cayman Islands law, payments of the Liquidation Preference and Dividends on the Preference Shares will not be subject to taxation in Cayman Islands and no withholding will be required on the payment of the Liquidation Preference and Dividends to any holder of the Preference Shares, as the case may be, nor will gains derived from the disposal of the Preference Shares be subject to Cayman Islands income or corporate tax. The Cayman Islands currently has no income, corporate or capital gains tax and no estate duty, inheritance tax or gift tax.

There is no exchange control legislation under Cayman Islands law and accordingly there are no exchange control regulations imposed under Cayman Islands law.

No stamp duty is payable in respect of the issue of the Preference Shares. An instrument of transfer in respect of the Preference Shares is stampable if executed in or brought into the Cayman Islands.

HONG KONG TAXATION

Withholding Tax

No withholding tax is payable in Hong Kong in respect of payments of Dividends on the Preference Shares or in respect of any capital gains arising from the sale of the Preference Shares.

Profits Tax

Hong Kong profits tax is chargeable on every person carrying on a trade, profession or business in Hong Kong in respect of profits arising in or derived from Hong Kong from such trade, profession or business (excluding profits arising from the sale of capital assets).

Under current practice, no profits tax is payable in Hong Kong in respect of Dividends paid by the Issuer.

No profits tax is imposed in Hong Kong in respect of capital gains from the sale of the Preference Shares. However, trading gains from the sale of the Preference Shares by persons carrying on a trade, profession or business in Hong Kong, where such gains are derived from or arise in Hong Kong from such trade, profession or business in Hong Kong, will be subject to Hong Kong profits tax (unless otherwise specifically exempted), which is currently imposed at the maximum rate of 16.5 per cent. on corporations and at the maximum rate of 15 per cent. on unincorporated businesses, with the first HK$2 million of assessment profits charged at 8.25 per cent. for corporations and 7.5 per cent. for unincorporated businesses, subject to certain conditions being met. Certain categories of taxpayers are likely to be regarded as deriving trading gains rather than capital gains (for example, financial institutions, insurance companies and securities dealers) unless these taxpayers can rely on a specific exemption.

Stamp Duty

No Hong Kong stamp duty will be chargeable upon the issuance of the Preference Shares. Hong Kong stamp duty will also not be chargeable upon the transfer of the Preference Shares so long as the register of the Preference Shareholders is maintained outside Hong Kong and such transfer is not required to be registered in Hong Kong.

SUBSCRIPTION AND SALE

The Issuer and the Parent have entered into a subscription agreement with the Joint Lead Managers dated 2 November 2021 (the "**Subscription Agreement**") pursuant to which and subject to certain conditions contained in the Subscription Agreement, the Issuer has agreed to sell to the Joint Lead Managers, and the Joint Lead Managers severally and not jointly agree to subscribe and pay for, or to procure subscribers to subscribe and pay for the aggregate Liquidation Preference of the Preference Shares in the amounts set opposite their names below at the Issue Price:

Joint Lead Manager	**Liquidation Preference of the Preference Shares to be subscribed**
Merrill Lynch (Asia Pacific) Limited	U.S.$250,000,000
BOCI Asia Limited	U.S.$250,000,000
Industrial and Commercial Bank of China (Asia) Limited	U.S.$250,000,000
ABCI Capital Limited	U.S.$ 50,000,000
BOCOM International Securities Limited	U.S.$ 50,000,000
CLSA Limited	U.S.$ 50,000,000
Total	U.S.$900,000,000

The Subscription Agreement provides that the Issuer and the Parent will jointly and severally indemnify the Joint Lead Managers and their affiliates against certain liabilities in connection with the offer and sale of the Preference Shares. The Subscription Agreement provides that the obligations of the Joint Lead Managers are subject to certain conditions precedent and entitles the Joint Lead Managers to terminate it in certain circumstances prior to payment being made to the Issuer.

The Issuer or, as the case may be, the Parent will pay the Joint Lead Managers' customary fees and commissions in connection with the offering and will reimburse the Joint Lead Managers for certain fees and expenses incurred in connection with the offering. The Joint Lead Managers and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities ("**Banking Services or Transactions**"). The Joint Lead Managers and their respective affiliates may have, from time to time, performed, and may in the future perform, various Banking Services and/or Transactions with the Issuer and the Parent for which they have received, or will receive, fees and expenses.

In connection with the Offering of the Preference Shares, the Joint Lead Managers and/or their respective affiliates, or affiliates of the Issuer or the Parent, may place orders, receive allocations and purchase the Preference Shares for their own account (without a view to distributing such Preference Shares) and such orders and/or allocations of the Preference Shares may be material. Such entities may hold or sell such Preference Shares or purchase further Preference Shares for their own account in the secondary market or deal in any other securities of the Issuer or the Parent, and therefore, they may offer or sell the Preference Shares or other securities otherwise than in connection with the Offering of the Preference Shares. Accordingly, references herein to the Preference Shares being 'offered' should be read as including any offering of the Preference Shares to the Joint Lead Managers and/or their respective affiliates, or affiliates of the Issuer or the Parent for their own account. Such entities are not expected to disclose such transactions or the extent of any such investment, otherwise than in accordance with any legal or regulatory obligation to do so. Furthermore, it is possible that a significant proportion of the Preference

Shares may be initially allocated to, and subsequently held by, a limited number of investors. If this is the case, liquidity of trading in the Preference Shares may be constrained (see "*Risk Factors – Risks Relating to the Market – An active trading market for the Preference Shares may not develop*"). The Issuer, the Parent and the Joint Lead Managers are under no obligation to disclose the extent of the distribution of the Preference Shares among individual investors, otherwise than in accordance with any applicable legal or regulatory requirements.

In the ordinary course of their various business activities, the Joint Lead Managers and their respective affiliates make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the Issuer and/or the Parent, including the Preference Shares and could adversely affect the trading prices of the Preference Shares. The Joint Lead Managers and their affiliates may make investment recommendations and/or publish or express independent research views (positive or negative) in respect of the Preference Shares or other financial instruments of the Issuer or the Parent, and may recommend to their clients that they acquire long and/or short positions in the Preference Shares or other financial instruments of the Issuer and the Parent.

In connection with the issue of the Preference Shares, any of the Joint Lead Managers appointed and acting as stabilisation manager (or persons acting on behalf of any of them) (the "**Stabilisation Manager**") may, to the extent permitted by applicable laws and directives, over-allot the Preference Shares or effect transactions with a view to supporting the price of the Preference Shares at a level higher than that which might otherwise prevail, but in so doing, the Stabilisation Manager or any person acting on behalf of the Stabilisation Manager shall act as principal and not as agent of the Issuer or the Parent. However, there is no assurance that the Stabilisation Manager or any person acting on behalf of the Stabilisation Manager will undertake stabilisation action. Any loss or profit sustained as a consequence of any such over-allotment or stabilisation shall be for the account of the Joint Lead Managers. Such stabilisation shall be conducted in accordance with all applicable laws and rules.

GENERAL

The distribution of this Offering Circular or any offering material and the offering, sale or delivery of the Preference Shares is restricted by law in certain jurisdictions. Therefore, persons who may come into possession of this Offering Circular or any offering material are advised to consult their own legal advisers as to what restrictions may be applicable to them and to observe such restrictions. This Offering Circular may not be used for the purpose of an offer or invitation in any circumstances in which such offer or invitation is not authorised.

No action has been or will be taken in any jurisdiction by the Issuer, the Parent or the Joint Lead Managers that would permit a public offering, or any other offering under circumstances not permitted by applicable law, of the Preference Shares, or possession or distribution of this Offering Circular, any amendment or supplement thereto issued in connection with the proposed resale of the Preference Shares or any other offering or publicity material relating to the Preference Shares, in any country or jurisdiction where action for that purpose is required. Accordingly, the Preference Shares may not be offered or sold, directly or indirectly, and neither this Offering Circular now any other offering material or advertisements in connection with the Preference Shares may be distributed or published, by the Issuer, the Parent or the Joint Lead Managers, in or from any country or jurisdiction, except in circumstances which will result in compliance with all applicable rules and regulations of any such country or jurisdiction and will not impose any obligations on the Issuer, the Parent or the Joint Lead Managers.

If a jurisdiction requires that the offering be made by a licenced broker or dealer and the Joint Lead Managers or any affiliate of the Joint Lead Managers are licenced brokers or dealers in that jurisdiction, the offering shall be deemed to be made by the Joint Lead Managers or such affiliate on behalf of the Issuer in such jurisdiction.

PROHIBITION OF SALES TO EEA RETAIL INVESTORS

Each Joint Lead Manager has represented and agreed that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Preference Shares to any retail investor in the EEA. For the purposes of this provision, the expression "**retail investor**" means a person who is one (or more) of the following:

(a) a retail client as defined in point (11) of Article 4(1) of MiFID II; or

(b) a customer within the meaning of Insurance Distribution Directive, where that customer would not qualify as professional client as defined in point (10) of Article 4(1) of MiFID II.

PROHIBITION OF SALES TO UK RETAIL INVESTORS

Each Joint Lead Manager has represented and agreed that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Preference Shares to any retail investor in the United Kingdom. For the purposes of this provision, the expression "**retail investor**" means a person who is one (or more) of the following:

(a) a retail client, as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the EUWA; or

(b) a customer within the meaning of the provisions of the FSMA and any rules or regulations made under the FSMA to implement Directive (EU) 2016/97, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA.

UNITED STATES

The Preference Shares have not been and will not be registered under the Securities Act and may not be offered or sold within the United States except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. Each of the Joint Lead Managers has represented that it has not offered or sold, and has agreed that it will not offer or sell, any of the Preference Shares constituting part of its allotment within the United States except in accordance with Rule 903 of Regulation S under the Securities Act. Accordingly, neither it, its affiliates nor any persons acting on its or their behalf have engaged or will engage in any directed selling efforts with respect to the Preference Shares. Terms used in this paragraph have the meanings given to them by Regulation S under the Securities Act.

UNITED KINGDOM

Each of the Joint Lead Managers has represented, warranted and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of

Section 21 of the FSMA received by it in connection with the issue or sale of any Preference Shares in circumstances in which Section 21(1) of the FSMA does not apply to the Issuer or the Parent; and

(b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the Preference Shares in, from or otherwise involving the United Kingdom.

HONG KONG

Each of the Joint Lead Managers has represented, warranted and agreed that:

(a) it has not offered or sold and will not offer or sell in Hong Kong, by means of any document, any Preference Shares other than (i) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong (the "**SFO**") and any rules made under the SFO; or (ii) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong (the "**C(WUMP)O**") or which do not constitute an offer to the public within the meaning of the C(WUMP)O; and

(b) it has not issued or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the Preference Shares, which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the Preference Shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO and any rules made under the SFO.

SINGAPORE

Each of the Joint Lead Managers has acknowledged that this Offering Circular has not been and will not be registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each of the Joint Lead Managers has represented and agreed that it has not offered or sold any Preference Shares or caused such Preference Shares to be made the subject of an invitation for subscription or purchase and will not offer or sell such Preference Shares or cause such Preference Shares to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this Offering Circular or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of such Preference Shares, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined in Section 4A of the SFA) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Preference Shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the Preference Shares pursuant to an offer made under Section 275 of the SFA, except:

(i) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(ii) where no consideration is or will be given for the transfer;

(iii) where the transfer is by operation of law;

(iv) as specified in Section 276(7) of the SFA; or

(v) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

JAPAN

The Preference Shares have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended, the "**Financial Instruments and Exchange Act**"). Accordingly, each of the Joint Lead Managers has represented and agreed that it has not, directly or indirectly, offered or sold and will not, directly or indirectly, offer or sell any Preference Shares in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organised under the laws of Japan) or to others for re-offering or re-sale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and other relevant laws and regulations of Japan.

THE PEOPLE'S REPUBLIC OF CHINA

Each of the Joint Lead Managers has represented and agreed that the Preference Shares are not being offered or sold and may not be offered or sold, directly or indirectly, in the People's Republic of China (for such purposes, not including the Hong Kong and Macau Special Administrative Regions or Taiwan) except as permitted by the securities laws of the People's Republic of China.

CAYMAN ISLANDS

Each of the Joint Lead Managers has represented and agreed that the offer to sell the Preference Shares is private and not intended for the public and, further that each Joint Lead Manager has not made and will not make any invitation to the public in the Cayman Islands or to residents of the Cayman Islands to offer or sell the Preference Shares.

GENERAL INFORMATION

1. **Clearing Systems**: The Preference Shares have been accepted for clearance through Euroclear and Clearstream under Common Code 240367149 and ISIN XS2403671493. The Legal Entity Identifier of the Issuer is 549300K9J35UYMX4PD72.

2. **Authorisations**: The Issuer has obtained all necessary consents, approvals and authorisations in connection with the issue and performance of the Preference Shares and the entry into the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees. The issue of the Preference Shares and the entry into the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees were authorised by written resolution of the sole director of the Issuer on 25 October 2021 and written resolution of the sole shareholder of the Issuer on 26 October 2021. The Parent has obtained all necessary consents, approvals and authorisations in connection with the entry into and performance of the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees. The entry into and performance of the Keepwell Deed, the Intragroup Financing Agreements and the Financing Guarantees were authorised by the meeting minutes of the board of managers of the Parent.

3. **No Material Adverse Change**: There has been no material adverse change, or any development or event likely to involve a prospective change, in the condition (financial or otherwise), prospects, properties, results of operations, business or general affairs of the Group since 31 December 2020.

4. **Litigation**: The Group is not involved in any litigation or arbitration proceedings that the Parent believes are material in the context of the Preference Shares, nor is the Parent aware that any such proceedings are pending or threatened.

5. **Reliance on Certificates**: Pursuant to the Terms and Conditions of the Preference Shares and the Trust Deed, the Trustee may rely without liability to Preference Shareholders on any report, confirmation, certificate or information from or any advice or opinion of any accountants, lawyers, financial advisers, financial institution or other expert, whether or not addressed to it and whether or not their liability in relation thereto is limited (by its terms or by any engagement letter entered into in relation thereto by the Trustee or any other person or in any other manner) by reference to a monetary cap, methodology or otherwise. The Trustee may accept and shall be entitled to rely on any such report, confirmation, certificate, information, advice or opinion, and will not be responsible or liable to Issuer, the Parent and the Preference Shareholders for such reliance.

6. **Available Documents**: So long as any of the Preference Shares is outstanding, copies of the following documents will be available for inspection from the Issue Date at all reasonable times during usual business hours (being between 9:00 a.m. (Hong Kong time) and 3:00 p.m. (Hong Kong time), from Monday to Friday (excluding public holidays)) at the principal place of business of the Trustee (being at the date of this Offering Circular at 20/F CCB Tower, 3 Connaught Road Central, Central, Hong Kong) following prior written request and proof of holding satisfactory to the Trustee:

   - the Trust Deed;
   - the Keepwell Deed;
   - the Agency Agreement; and
   - (subject to the same having been provided to the Trustee by the Parent) the Parent's Consolidated Audited Financial Statements and the Articles of Association.

7. **Financial Statements**: The Parent's Consolidated Audited Financial Statements, which are included elsewhere in this Offering Circular, have been audited by BDO, the Parent's independent auditor, as stated in its report appearing herein.

8. **Listing**: Application has been made to the SGX-ST for the listing of and quotation for the Preference Shares on the Official List of the SGX-ST.

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STATE POWER INVESTMENT CORPORATION LIMITED

AUDITORS' REPORT AND FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2020

PCPAR [2021] NO. ZG27610

STATE POWER INVESTMENT CORPORATION LIMITED
AUDITORS' REPORT AND FINANCIAL STATEMENTS
(From January 1, 2020 to December 31, 2020)

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Auditors' Report

PCPAR [2021] No. ZG27610

To the Board of Directors of State Power Investment Corporation Limited,

Opinion

We have audited the accompanying financial statements of State Power Investment Corporation Limited (hereinafter referred to as the "Company"), which comprise the consolidated and parent company's balance sheets as at December 31, 2020, the consolidated and parent company's income statements, the consolidated and parent company's statements of cash flows, and the consolidated and parent company's statements of changes in owners' equity for the year then ended, and the notes to the financial statements.

In our opinion, the accompanying financial statements present fairly, in all material respects, the consolidated and parent company's financial position as at December 31, 2020 and the consolidated and parent company's operating results and cash flows for the year then ended, in accordance with the requirements of Accounting Standards for Business Enterprises..

Basis for Our Opinions

We conducted our audit in accordance with the China Standards on Auditing. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the Code of Ethics for Professional Accountants of the Chinese Institute of Certified Public Accountants ("CICPA Code"), and we have fulfilled our other ethical responsibilities in accordance with the CICPA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

We determine to communicate the following key audit matters in the auditors' report.

Key Audit Matters	How to cope with these matters in the audit
(I) Impairment of goodwill	
As mentioned in Note 8.30, as at December 31, 2020, the original book value of goodwill of the Company totaled RMB 15.74 billion, and the balance of corresponding provision for impairment amounted to RMB 3.335 billion. According to the Accounting Standards for Business Enterprises, the Management conducts impairment test on goodwill by comparing the recoverable amount of the relevant asset group of which goodwill is apportioned and the book value of the asset group and goodwill. The forecast of the recoverable amount involves a forecast of the present value of the future cash flows of the asset group, and the Management needs to make significant judgments and assumptions. As the related impairment assessment and testing requires significant judgment of the Management; therefore, we identify the impairment test of goodwill as a key audit matter.	Our audit procedures mainly include: 1. Evaluate and test the effectiveness of internal control design and implementation relating to the impairment test of goodwill. 2. Assess the appropriateness of the impairment testing method, test the underlying data on which the Management's impairment tests are based, and use valuation experts to assess the reasonableness of the key assumptions and judgments used in the Management's impairment tests. 3. Evaluate the independence, competence, professional quality and objectivity of the appraiser. 4. Verify the accuracy of the calculation of the goodwill impairment test model.
(II) Recoverability of accounts receivable	
As mentioned in Note 8.6, as at December 31, 2020, the balance of accounts receivable of the Company was RMB 64.216 billion, and the balance of corresponding provision for bad debts of accounts receivable amounted to RMB 1.431 billion. Since the Management needs to apply significant accounting estimation and judgment when determining the recoverability of accounts receivable, and the impact amount is significant, we have determined the recoverability of accounts receivable as the key audit matter.	Our audit procedures mainly include: 1. Understanding, evaluating and testing the Management's aging analysis on accounts receivable and the internal control related to determining the provision for bad debts of accounts receivable, and evaluate the operational effectiveness of such key internal control; 2. Consider whether the policy for bad debts adopted by the Management in 2020 is consistent with that adopted in the previous year, reviewing the related considerations of and objective evidence used by the Management in the impairment test of accounts receivables, and focusing on whether the Management has fully identified the impaired items; 3. Selecting sample from the accounts receivables accrued for provision for bad debts on a single basis to review the basis and the reasonability of the estimate made by the Management on the future cash flows;

Key Audit Matters	How to cope with these matters in the audit
(II) Recoverability of accounts receivable	
	4. Evaluating the reasonability of the proportion of the provision for bad debts made by the Management for the accounts receivables for which the provision for bad debts is made according to the portfolio of the credit risk characteristics; 5. Implementing the confirmation procedure and checking the confirmation result with the amount recorded by the Management; and 6. Evaluating the reasonability of the provision for bad debts of accounts receivable made by the Management in combination with the situation of previous and post-period recovery of account receivables.
(III) Valuation of financial assets The valuation of the Company's financial instruments is based on the market data and valuation models, of which the valuation models usually require a large number of parameter inputs. Most of the parameters are derived from data that can be reliably obtained from active markets. When observable parameters are not reliably available, i.e. when the fair value is in level 3, the determination of unobservable parameters may use the Management's estimates, which can involve the Management's significant judgment. Valuation techniques often include assumptions and estimates that rely on subjective judgment. The use of different valuation techniques or assumptions will likely result in significantly difference in the estimates of the fair value of financial instruments. As the complex process is involved in assessing the fair value of financial instruments and the extent of the Management's judgment is involved in determining the parameters used in the valuation model, financial assets measured at fair value amounted to RMB 18,918 million as of December 31, 2020, and therefore, we identified the assessment of the fair value of financial instruments as a key audit matter.	Our audit procedures mainly include: 1. Understand and assess the effectiveness of the internal control processes used by the Management to identify, measure and manage risks associated with the valuation of financial assets. 2. Obtain the asset valuation reports issued by external appraiser hired by the Management and assessed the competence, professionalism and objectivity of the external appraiser; communicate fully with the valuation experts to understand and evaluate the applicability of relevant valuation methods, models and pricing parameters as a whole. 3. Select a sample to evaluate the valuation of financial assets classified to measured at fair value at Level 1 by comparing the fair value adopted by the Company with publicly available market data. 4. For the valuation of financial assets classified to measured at fair value as Level 2 and Level 3, we evaluate the applicability of the valuation model, review the authenticity and accuracy of the underlying data used in the valuation process, and perform recalculations of the valuation results 5. We evaluate whether the relevant disclosures in the financial statements comply with the disclosure requirements of the Accounting Standards for Business Enterprises and appropriately reflect the valuation risk of financial assets.

Responsibilities of the Management and Those Charged with Governance for the Financial Statements

Management of the Company (hereinafter referred to as "Management") is responsible for preparation and fair presentation of the financial statements in accordance with the requirements of Accounting Standards for Business Enterprises, and for such internal control as the Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error..

In preparing the financial statements, the Management is responsible for assessing the Company's ability to continue as a going concern, disclosing, if applicable, matters related to going concern and using the going concern basis of accounting unless the Management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are generally considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with China Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

(1) Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

(2) Obtain an understand of the internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control.

(3) Evaluate the appropriateness of accounting policies used by and the reasonableness of accounting estimates and related disclosures made by the Management.

(4) Conclude on the appropriateness of the Management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements, or if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.

(5) Evaluate the overall presentation (including the disclosures), structure and contents of the financial statements, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

(6) Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

BDO CHINA Shu Lun Pan
Certified Public Accountants LLP

Certified Public Accountant of China: 王雪莲 110001800053

Certified Public Accountant of China: 340200980009

Shanghai, China **April 19, 2021**

This auditors' report and the accompanying financial statements are English translations of the Chinese auditors' report and statutory financial statements prepared under accounting principles and practices generally accepted in the People's Republic of China. In case the English version does not conform to the Chinese version, the Chinese version shall prevail.

State Power Investment Corporation Limited
Consolidated Balance Sheet
As at December 31, 2020
(Amounts are expressed in RMB unless otherwise stated)

Item	Note	Balance as at December 31, 2020	Balance as at January 1, 2020
Current assets:			
Monetary funds	8.1	23,347,219,759.33	28,229,417,181.70
△Balances with clearing companies			
△Loans to banks and other financial institutions			
☆Financial assets held for trading	8.2	13,054,546,639.76	9,337,138,036.24
Financial assets measured at fair value through the current profit or loss	8.3	1,466,401,668.98	895,729,855.41
Derivative financial assets	8.4	625,730,388.66	114,008,596.43
Notes receivable	8.5	15,312,667,019.85	14,069,575,431.49
Accounts receivable	8.6	62,785,165,566.93	49,247,375,966.52
☆Receivables financing	8.7	4,350,559,316.47	2,156,787,773.52
Advances to suppliers	8.8	18,333,665,320.55	19,416,206,899.51
△Premiums receivable			
△Reinsurance accounts receivable			
△Reinsurance contract reserves receivable			
Other receivables	8.9	20,944,458,493.46	19,643,855,245.99
Including: dividends receivable	8.9	344,573,317.47	318,354,696.89
△Financial assets purchased under resale agreements	8.10	35,953,071.30	
Inventories	8.11	20,637,622,341.50	22,893,689,572.70
Including: raw materials	8.11	9,510,150,335.26	9,397,035,049.37
Stock commodities (finished goods)	8.11	2,967,687,630.50	2,602,330,041.30
☆Contract assets	8.12	4,491,874,328.69	6,180,722,250.36
Assets held for sale	8.13	5,396,191,551.88	4,431,941,131.67
Non-current assets maturing within one year	8.14	19,268,981,785.92	24,985,659,965.46
Other current assets	8.15	22,543,912,529.32	19,127,465,964.73
Total current assets		232,594,949,782.60	220,729,573,871.73
Non-current assets:			
△Disbursement of loans and advances	8.16	646,772,417.23	651,767,097.46
☆Creditor's right investment	8.17	2,674,347,941.44	1,048,367,921.22
Available-for-sale financial assets	8.18	9,657,073,727.95	7,536,581,288.93
☆Other creditor's right investment			
Held-to-maturity investment	8.19	5,525,114,108.05	4,285,964,839.75
Long-term receivables	8.20	43,673,995,315.92	55,724,133,391.96
Long-term equity investments	8.21	42,662,992,230.36	39,245,264,687.00
☆Investment in other equity instruments	8.22	2,916,792,387.82	2,498,695,393.13
☆Other non-current financial assets	8.23	47,500,000.00	197,170,379.36
Investment properties	8.24	3,857,584,864.52	4,188,604,702.44
Fixed assets	8.25	685,810,668,576.09	604,708,221,082.63
Including: original cost of fixed assets	8.25	1,029,309,327,585.13	915,333,743,112.74
Accumulated depreciation	8.25	331,284,442,279.73	300,098,412,493.55
Provision for impairment of fixed assets	8.25	12,745,368,099.42	11,059,052,251.55
Construction in progress	8.26	178,736,004,911.85	157,494,642,429.70
Productive biological assets			
Oil and gas assets			

Item	Note	Balance as at December 31, 2020	Balance as at January 1, 2020
☆Right-of-use assets	8.27	5,045,178,083.61	5,284,860,281.91
Intangible assets	8.28	42,404,164,073.72	35,053,910,858.59
Development expenses	8.29	8,783,389,230.01	5,745,418,433.67
Goodwill	8.30	12,404,290,019.94	10,559,342,155.25
Long-term deferred expenses	8.31	4,848,990,742.36	4,277,852,305.82
Deferred income tax assets	8.32	3,809,218,315.77	3,938,817,969.78
Other non-current assets	8.33	38,037,871,735.72	31,162,446,088.71
Including: special reserve materials			
Total non-current assets		1,091,541,948,682.36	973,602,061,307.31
Total assets		1,324,136,898,464.96	1,194,331,635,179.04

Remark: Items marked with △ are for financial enterprises only; items marked with # are for foreign-invested enterprises purpose only; items marked with ☆ are for enterprises implementing the standards for the new revenue/ new lease/new financial instruments.

The accompanying notes to the financial statements form an integral part of the financial statements.

Legal Representative: 钟智民 Accounting Principal: [illegible] Head of the Accounting Department: [illegible]

State Power Investment Corporation Limited
Consolidated Balance Sheet (Continued)
As at December 31, 2020
(Amounts are expressed in RMB unless otherwise stated)

Item	Note	Balance as at December 31, 2020	Balance as at January 1, 2020
Current liabilities:			
Short-term borrowings	8.34	146,604,414,000.94	148,336,462,719.11
△Borrowings from central bank			
△Loans from banks and other financial institutions			
☆Financial liabilities held for trading	8.35	188,671,425.07	
Financial liabilities measured at fair value through current profit or loss	8.36	453,119,000.00	
Derivative financial liabilities	8.37	237,373,014.33	266,143,986.38
Notes payable	8.38	12,065,963,019.74	13,582,812,816.73
Accounts payable	8.39	60,023,431,925.48	54,392,412,072.60
Advances from customers	8.40	11,278,736,057.74	12,563,137,411.12
☆Contract liabilities	8.41	1,665,248,234.30	1,151,787,732.62
△Financial assets sold under repurchase agreements	8.42	18,773,914.16	
△Absorption of deposits and interbank deposit	8.43	273,504,919.77	25,048,256.16
△Receivings from vicariously traded securities			
△Receivings from vicariously sold securities			
Employee compensation payable	8.44	2,949,513,168.61	2,848,375,446.54
Including: wages payable	8.44	1,699,157,998.12	1,739,087,407.68
Welfare payable	8.44	1,362,397.79	1,362,397.89
#Including: employee bonus and welfare fund			
Taxes and surcharges payable	8.45	6,570,929,374.78	6,075,589,281.68
Including: taxes payable	8.45	5,368,626,695.79	5,004,262,234.36
Other payables	8.46	24,485,215,295.80	25,652,240,498.44
Including: dividends payable	8.46	1,159,440,203.56	1,260,362,939.62
△Handling charges and commissions payable			
△Reinsurance accounts payable			
Liabilities held for sale	8.47	3,080,819,723.48	4,080,297,086.02
Non-current liabilities maturing within one year	8.48	109,271,937,553.77	82,561,021,021.83
Other current liabilities	8.49	59,154,240,876.19	53,845,224,022.20
Total current liabilities		438,321,891,504.16	405,380,552,351.43
Non-current liabilities:			
△Reserves for insurance contracts			
Long-term borrowings	8.50	376,863,285,561.57	319,472,955,750.20
Bonds payable	8.51	95,645,556,037.63	119,503,027,595.22
Including: preferred stock			
Perpetual bonds			
☆Lease liabilities	8.53	3,785,161,186.87	4,104,921,109.60
Long-term payables	8.54	42,006,450,208.47	39,448,475,050.54
Long-term employee compensation payable	8.55	10,678,257.36	12,681,937.11
Estimated liabilities	8.56	559,082,406.73	527,967,440.32
Deferred income	8.57	10,584,770,192.47	10,547,498,417.33

Item	Note	Balance as at December 31, 2020	Balance as at January 1, 2020
Deferred income tax liabilities	8.32	1,527,521,307.45	1,505,414,322.29
Other non-current liabilities	8.58	3,640,332,730.90	3,967,501,558.46
Including: special reserve funds			
Total non-current liabilities		534,622,837,889.45	499,090,443,181.07
Total liabilities		972,944,729,393.61	904,470,995,532.50
Owners' equity (or shareholders' equity):			
Paid-in capital (or share capital)	8.59	35,000,000,000.00	35,000,000,000.00
State-owned capital	8.59	35,000,000,000.00	35,000,000,000.00
State-owned legal person's capital			
Collective capital			
Private capital			
Foreign capital			
#Less: investment returned			
Net paid-in capital (or share capital)	8.59	35,000,000,000.00	35,000,000,000.00
Other equity instruments	8.60	110,146,036,964.26	52,766,185,754.59
Including: preferred stocks			
Perpetual bonds	8.60	110,146,036,964.26	52,766,185,754.59
Capital reserves	8.61	19,148,856,553.21	17,574,090,051.31
Less: treasury stocks			
Other comprehensive income		-1,249,920,635.40	-248,912,253.58
Including: foreign currency translation differences		-1,825,601,226.00	-964,139,555.18
Special reserves	8.62	172,468,588.69	180,259,763.35
Surplus reserves			
Including: statutory reserve funds			
Discretionary reserve funds			
#Reserve funds			
#Enterprise expansion funds			
#Profit capitalized on return of investments			
△General risk reserves			
Undistributed profits	8.63	426,023,280.74	2,879,683,025.90
Total equity attributable to owners (or shareholders) of the parent company		163,643,464,751.50	108,151,306,341.57
Minority equity		187,548,704,319.85	181,709,333,304.97
Total owner's equity (or shareholders' equity)		351,192,169,071.35	289,860,639,646.54
Total liabilities and owners' equity (or shareholders' equity)		1,324,136,898,464.96	1,194,331,635,179.04

Remark: Items marked with △ are for financial enterprises only; items marked with # are for foreign-invested enterprises purpose only; items marked with ☆ are for enterprises implementing the standards for the new revenue/ new lease/new financial instruments.

The accompanying notes to the financial statements form an integral part of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Parent Company's Balance Sheet
As at December 31, 2020
(Amounts are expressed in RMB unless otherwise stated)

Item	Note	Balance as at December 31, 2020	Balance as at January 1, 2020
Current assets:			
Monetary funds		346,679,7[illegible].54	1,734,802,021.16
△Balances with clearing companies			
△Loans to banks and other financial institutions			
☆Financial assets held for trading			
Financial assets measured at fair value through the current profit or loss			
Derivative financial assets			
Notes receivable		74,844,927.53	179,900,725.97
Accounts receivable	12.1	2,128,426,295.83	2,092,554,813.31
☆Receivables financing			
Advances to suppliers		637,882,335.84	387,489,807.25
△Premiums receivable			
△Reinsurance accounts receivable			
△Reinsurance contract reserves receivable			
Other receivables	12.2	6,993,138,411.28	5,986,305,629.79
Including: dividends receivable	12.2	1,772,791,701.58	2,088,288,497.16
△Financial assets purchased under resale agreements			
Inventories		271,557,885.39	312,759,940.24
Including: raw materials			
Stock commodities (finished goods)		271,557,885.39	312,759,940.24
☆Contract assets			
Assets held for sale			
Non-current assets maturing within one year			
Other current assets		8,132,752,824.00	6,889,109,003.92
Total current assets		18,585,282,426.41	17,582,921,941.64
Non-current assets:			
△Disbursement of loans and advances			
☆Creditor's right investment			
Available-for-sale financial assets		6,655,681,878.92	3,002,204,704.07
☆Other creditor's right investment			
Held-to-maturity investment			
Long-term receivables			
Long-term equity investments	12.3	168,308,445,675.50	158,480,275,174.02
☆Investment in other equity instruments			
☆Other non-current financial assets			
Investment properties		2,121,792,600.00	2,139,901,700.00
Fixed assets		102,276,416.00	318,055,723.58
Including: original cost of fixed assets		288,657,924.74	499,802,423.27
Accumulated depreciation		186,381,508.74	181,746,699.69
Provision for impairment of fixed assets			
Construction in progress		32,219,477.32	36,579,600.69
Productive biological assets			
Oil and gas assets			
☆Right-of-use assets			
Intangible assets		725,832,535.81	1,119,250,953.69

Item	Note	Balance as at December 31, 2020	Balance as at January 1, 2020
Development expenses		23,360,849.05	
Goodwill			
Long-term deferred expenses		38,161,437.86	22,124,888.99
Deferred income tax assets			
Other non-current assets		51,651,350,000.00	5,945,449,194.74
Including: special reserve materials			
Total non-current assets		229,659,120,870.46	171,063,841,939.78
Total assets		248,244,403,296.87	188,646,763,881.42

Remark: Items marked with △ are for financial enterprises only; items marked with # are for foreign-invested enterprises purpose only; items marked with ☆ are for enterprises implementing the standards for the new revenue/ new lease/new financial instruments.

The accompanying notes to the financial statements form an integral part of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Parent Company's Balance Sheet (Continued)
As at December 31, 2020
(Amounts are expressed in RMB unless otherwise stated)

Item	Note	Balance as at December 31, 2020	Balance as at January 1, 2020
Current liabilities:			
Short-term borrowings		34,620,000,000.00	39,100,057,366.96
△Borrowings from central bank			
△Loans from banks and other financial institutions			
☆Financial liabilities held for trading			
Financial liabilities measured at fair value through the current profit or loss			
Derivative financial liabilities			
Notes payable		334,168,093.97	
Accounts payable		855,104,845.25	1,463,141,814.78
Advances from customers		510,877,926.65	691,577,417.34
☆Contract liabilities			
△Financial assets sold under repurchase agreements			
△Absorption of deposits and interbank deposit		2,980,624,660.35	1,515,846,900.66
△Receivings from vicariously traded securities			
△Receivings from vicariously sold securities			
Employee compensation payable		693,450,807.14	707,160,389.32
Including: wages payable		660,302,277.54	676,056,777.54
Welfare payable			
#Including: employee bonus and welfare fund			
Taxes and surcharges payable		18,030,968.75	7,538,800.74
Including: taxes payable		18,030,968.75	7,538,800.74
Other payables		3,173,261,045.43	1,310,871,988.91
Including: dividends payable			
△Handling charges and commissions payable			
△Reinsurance accounts payable			
Liabilities held for sale			
Non-current liabilities maturing within one year		15,687,735,000.00	9,997,365,000.00
Other current liabilities		2,053,382,048.15	81,000,000.00
Total current liabilities		60,926,635,395.69	54,874,559,678.71
Non-current liabilities:			
△Reserves for insurance contracts			
Long-term borrowings			
Bonds payable		21,031,903,000.00	27,083,880,000.00
Including: preferred stock			
Perpetual bonds			
☆Lease liabilities			
Long-term payables		36,625,700.00	1,009,982,162.06
Long-term employee compensation payable			
Estimated liabilities			
Deferred income		938,534.00	1,022,625.00
Deferred income tax liabilities		465,863,149.01	457,900,616.28
Other non-current liabilities			
Including: special reserve funds			
Total non-current liabilities		21,535,330,383.01	28,552,785,403.34
Total liabilities		82,461,965,778.70	83,427,345,082.05
Owners' equity (or shareholders' equity):			

Item	Note	Balance as at December 31, 2020	Balance as at January 1, 2020
Paid-in capital (or share capital)		35,000,000,000.00	35,000,000,000.00
State-owned capital		35,000,000,000.00	35,000,000,000.00
State-owned legal person's capital			
Collective capital			
Private capital			
Foreign capital			
#Less: investment returned			
Net paid-in capital (or share capital)		35,000,000,000.00	35,000,000,000.00
Other equity instruments		110,146,036,964.26	52,766,185,754.59
Including: preferred stock			
Perpetual bonds		110,146,036,964.26	52,766,185,754.59
Capital reserves		613,358,860.50	613,358,860.50
Less: treasury stocks			
Other comprehensive income		1,382,430,477.98	1,358,542,879.82
Including: foreign currency translation differences			
Special reserves			
Surplus reserves			
Including: statutory reserve funds			
Discretionary reserve funds			
#Reserve funds			
#Enterprise expansion funds			
#Profit capitalized on return of investments			
△General risk reserves			
Undistributed profits		18,640,611,215.43	15,481,331,304.46
Total owner's equity (or shareholders' equity)		165,782,437,518.17	105,219,418,799.37
Total liabilities and owners' equity (or shareholders' equity)		248,244,403,296.87	188,646,763,881.42

Remark: Items marked with △ are for financial enterprises only; items marked with # are for foreign-invested enterprises purpose only; items marked with ☆ are for enterprises implementing the standards for the new revenue/ new lease/new financial instruments.

The accompanying notes to the financial statements form an integral part of the financial statements.

Legal Representative: [illegible] Accounting Principal: [illegible] Head of the Accounting Department: [illegible]

State Power Investment Corporation Limited
Consolidated Income Statement
For the Year Ended December 31, 2020
(Amounts are expressed in RMB unless otherwise stated)

Item	Note	Year 2020	Year 2019
I. Total operating revenue		278,227,790,169.50	272,239,922,635.59
Including: operating revenue	8.64	278,227,790,169.50	272,239,922,635.59
△Interest income			
△Premiums earned			
△Revenue from handling charges and commissions			
II. Total operating costs		257,526,108,114.68	255,291,856,726.45
Including: operating cost	8.64	212,311,130,748.50	213,291,430,221.38
△Interest expenses			
△Handling charges and commissions expenses			
△Surrender value			
△Net amount of compensation payout			
△Net amount withdrawn for insurance contract reserves			
△Policy dividend payment			
△Reinsurance costs			
Taxes and surcharges		4,959,732,863.18	4,746,706,838.74
Selling and distribution expenses	8.65	777,067,439.54	707,920,729.28
General and administrative expenses	8.65	7,301,242,735.13	7,139,548,157.81
Research and development expenses	8.65	2,306,085,648.55	1,533,836,877.37
Financial expenses	8.65	29,870,848,679.78	27,872,413,901.87
Including: interest expenses	8.65	29,508,088,286.14	27,517,374,716.73
Interest income	8.65	320,974,782.56	286,266,382.90
Net loss from foreign exchange ("-" for net gain)	8.65	239,811,549.63	61,458,460.23
Others			
Plus: other income	8.66	1,907,684,688.73	1,847,913,949.21
Investment income ("-" for losses)	8.67	6,034,582,174.10	5,777,562,122.58
Including: income from investment in associates and joint ventures	8.67	3,070,297,308.30	2,310,519,735.44
☆Income from derecognition of financial assets measured by amortized cost		-98,762,053.23	-26,543,704.67
△Income from foreign exchange ("-" for losses)		-4,583,701.94	1,066,383.32
☆Income from net exposure hedging ("-" for losses)			
Gains from changes in fair value ("-" for losses)	8.68	143,619,514.88	53,135,256.57
☆Losses from credit impairment ("-" for losses)	8.69	-586,370,858.12	-146,836,127.62
Losses from impairment of assets ("-" for losses)	8.70	-7,676,112,073.90	-8,115,494,212.22
Gains from disposal of assets ("-" for losses)	8.71	270,582,106.83	331,493,784.71
III. Operating profits ("-" for losses)		20,791,083,905.40	16,696,907,065.69
Plus: non-operating revenue	8.72	1,387,594,496.34	1,378,054,257.76
Including: government grants	8.72	200,746,915.21	208,446,392.89
Less: non-operating expenses	8.73	1,479,586,964.00	2,173,698,006.07

Item	Note	Year 2020	Year 2019
IV. Total profits ("-" for total losses)		20,699,091,437.74	15,901,263,317.38
Less: income tax expenses	8.74	6,864,348,055.56	5,355,165,413.68
V. Net profit ("-" for net loss)		13,834,743,382.18	10,546,097,903.70
(I) Classified by ownership:			
Net profit attributable to owners of the parent company		2,371,908,626.88	1,251,049,572.01
Minority interest income		11,462,834,755.30	9,295,048,331.69
(II) Classified by operating sustainability:			
Net profit from continued operation		13,834,743,382.18	10,546,097,903.70
Net profit of discontinued operation			
VI. Other comprehensive income, net of tax		-1,649,755,652.89	473,397,060.10
Other comprehensive income, net of tax attributable to owners of the parent company	8.75	-1,000,212,895.89	609,716,058.47
(I) Other comprehensive income that cannot be reclassified into profit or loss	8.75	660,933,108.23	-157,173,691.58
1. Changes in re-measurement of the defined benefit plan			
2. Other comprehensive income that cannot be transferred to profit or loss under the equity method		-52,049.81	-275,174.68
☆3. Changes in the fair value of other equity instruments investment		660,985,158.04	-156,898,516.90
☆4. Changes in the fair value of the company's own credit risk			
5. Others			
(II) Other comprehensive income that will be reclassified into profit or loss	8.75	-1,661,146,004.12	766,889,750.05
1. Other comprehensive income that can be transferred to profit or loss under the equity method		-63,962,920.24	-41,977,332.61
☆2. Changes in fair value of other creditor's right investment			
3. Profit or loss of change in faire value of available-for-sale financial assets		49,836,292.80	108,968,703.43
☆4. Amount of financial assets reclassified into other comprehensive income			
5. Profit or loss from reclassification of held-to-maturity investments as available-for-sale financial assets		42,075,183.35	197,163,741.27
☆6. Provision for credit impairment of other creditor's right investment			
7. Reserves of cash flow hedges (effective portion of cash flow hedging profit or loss)		-230,252,908.31	-208,946,359.51
8. Differences arising from translation of foreign-currency financial statements		-861,461,670.82	-7,220,254.30
9. Others		-597,379,980.90	718,901,251.77
Other comprehensive income, net of tax, attributable to minority shareholders		-649,542,757.00	-136,318,998.37

Item	Note	Year 2020	Year 2019
VII. Total comprehensive income		12,184,987,729.29	11,019,494,963.80
Total comprehensive income attributable to owners of the parent company		1,371,695,730.99	1,860,765,630.48
Total comprehensive income attributable to minority shareholders		10,813,291,998.30	9,158,729,333.32
VIII. Earnings per share:			
Basic earnings per share			
Diluted earnings per share			

Remark: Items marked with △ are for financial enterprises only; items marked with ☆ are for enterprises implementing the standards for the new revenue/new financial instruments.

The accompanying notes to the financial statements form an integral part of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Parent Company's Income Statement
For the Year Ended December 31, 2020
(Amounts are expressed in RMB unless otherwise stated)

Item	Note	Year 2020	Year 2019
I. Total operating revenue		5,526,445,881.58	3,743,970,239.59
Including: operating revenue	12.4	5,526,445,881.58	3,743,970,239.59
△Interest income			
△Premiums earned			
△Revenue from handling charges and commissions			
II. Total operating costs		8,493,253,577.48	7,716,430,655.61
Including: operating cost	12.4	4,718,639,292.95	3,387,615,954.01
△Interest expenses			
△Handling charges and commissions expenses			
△Surrender value			
△Net amount of compensation payout			
△Net amount withdrawn for insurance contract reserves			
△Policy dividend payment			
△Reinsurance costs			
Taxes and surcharges		44,628,008.46	23,107,959.26
Selling and distribution expenses			
General and administrative expenses		614,503,272.02	1,063,881,141.46
Research and development expenses		399,226.09	1,254,761.76
Financial expenses		3,115,083,777.96	3,240,570,839.12
Including: interest expenses		3,079,820,434.54	3,248,914,803.05
Interest income		7,296,843.57	12,292,691.34
Net loss from foreign exchange ("-" for net gain)		24,408,687.53	-333,184.96
Others			
Plus: other income		1,079,981.52	115,371.68
Investment income ("-" for losses)	12.5	8,844,978,421.05	10,086,275,344.83
Including: income from investment in associates and joint ventures		29,004,667.38	1,419,782.40
☆Income from derecognition of financial assets measured by amortized cost			
△Income from foreign exchange ("-" for losses)			
☆Income from net exposure hedging ("-" for losses)			
Gains from changes in fair value ("-" for losses)		-18,109,100.00	
☆Losses from credit impairment ("-" for losses)			
Losses from impairment of assets ("-" for losses)		-2,713,730.80	-27,408,574.50
Gains from disposal of assets ("-" for losses)			25,601,243.25
III. Operating profits ("-" for losses)		5,858,427,875.87	6,112,122,969.24
Plus: non-operating revenue		241,722.96	6,583,417.14
Including: government grants		213,625.00	113,625.00
Less: non-operating expenses		870,530.78	2,665,598.00
IV. Total profits ("-" for total losses)		5,857,799,068.05	6,116,040,788.38
Less: income tax expenses			
V. Net profit ("-" for net loss)		5,857,799,068.05	6,116,040,788.38
(I) Net profit from continued operation		5,857,799,068.05	6,116,040,788.38
(II) Net profit from discontinued operation			
VI. Other comprehensive income, net of tax		23,887,598.16	1,358,542,879.82
(I) Other comprehensive income that cannot be			

Item	Note	Year 2020	Year 2019
reclassified into profit or loss			
1. Changes in re-measurement of the defined benefit plan			
2. Other comprehensive income that cannot be transferred to profit or loss under the equity method			
☆3. Changes in the fair value of other equity instruments investment			
☆4. Changes in the fair value of the company's own credit risk			
5. Others			
(II) Other comprehensive income that will be reclassified into profit or loss		23,887,598.16	1,358,542,879.82
1. Other comprehensive income that can be transferred to profit or loss under the equity method			
☆2. Changes in fair value of other creditor's right investment			
3. Profit or loss of change in fair value of available-for-sale financial assets		23,887,598.16	-4,599,589.20
☆4. Amount of financial assets reclassified into other comprehensive income			
5. Profit or loss from reclassification of held-to-maturity investments as available-for-sale financial assets			
☆6. Provision for credit impairment of other creditor's right investment			
7. Reserves of cash flow hedges (effective portion of cash flow hedging profit or loss)			
8. Differences arising from translation of foreign-currency financial statements			
9. Others			1,363,142,469.02
VII. Total comprehensive income		5,881,686,666.21	7,474,583,668.20
VIII. Earnings per share:			
Basic earnings per share			
Diluted earnings per share			

Remark: Items marked with △ are for financial enterprises only; items marked with ☆ are for enterprises implementing the standards for the new revenue/new financial instruments.

The accompanying notes to the financial statements form an integral part of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Consolidated Statement of Cash Flows
For the Year Ended December 31, 2020
(Amounts are expressed in RMB unless otherwise stated)

Item	Note	Year 2020	Year 2019
I. Cash flows from operating activities:			
Cash received from sale of goods and rendering of services		283,050,746,297.87	264,186,286,493.71
△Net increase in customer deposits and deposits from other banks and financial institutions		248,456,663.61	-581,642,206.20
△Net increase in borrowings from central bank			
△Net increase in loans from other financial institutions			-200,000,000.00
△Premiums received from original insurance contracts			
△Net cash received from reinsurance business			
△Net increase in deposits and investments from policyholders			
△Net increase received from disposal of financial assets measured at fair value through current profit or loss		-3,943,553,694.57	-3,281,752,881.57
△Cash received from interest, handling charges and commissions		1,598,191,560.28	1,710,169,127.75
△Net increase in loans from banks and other financial institutions			
△Net capital increase in repurchase business			
△Net cash from receivings from vicariously traded securities			
Refund of taxes and surcharges		880,046,231.30	507,282,880.96
Cash received from other operating activities		25,056,703,402.12	19,002,446,887.85
Sub-total of cash inflows from operating activities		306,890,590,460.61	281,342,790,302.50
Cash paid for goods purchased and services received		174,564,595,565.61	176,260,975,206.07
△Net increase in loans and advances to customers		-2,036,034,279.23	-4,710,511,659.21
△Net increase in deposits in the central bank, other banks and financial institutions		433,026,540.25	-599,408,810.33
△Cash paid for original insurance contract claims			
△Net increase in loans to banks and other financial institutions			
△Cash paid for interest, handling charges and commissions		609,256,332.30	330,489,538.92
△Cash paid for policy dividends			
Cash paid to and on behalf of employees		28,917,863,941.93	27,452,646,608.57
Cash paid for taxes and surcharges		22,584,674,143.38	22,810,154,592.83
Cash paid for other operating activities		26,753,942,863.40	18,391,534,893.51
Sub-total of cash outflows from operating activities		251,827,325,107.64	239,935,880,370.36
Net cash flows from operating activities	8.80	55,063,265,352.97	41,406,909,932.14
II. Cash flows from investing activities:			
Cash received from disposal of investments		39,874,558,311.42	49,378,376,958.39

Item	Note	Year 2020	Year 2019
Cash received from returns on investments		4,886,423,884.34	3,851,217,403.97
Net cash received from disposal of fixed assets, intangible assets and other long-term assets		1,058,069,132.92	561,822,383.50
Net cash received from disposal of subsidiaries and other business units		502,112,468.76	3,977,283,458.91
Cash received from other investing activities		11,433,538,108.87	17,185,527,100.04
Sub-total of cash inflows from investing activities		57,754,701,906.31	74,954,227,304.81
Cash paid for purchase and construction of fixed assets, intangible assets and other long-term assets		104,527,172,224.72	75,462,045,369.40
Cash paid for investments		76,203,455,992.05	72,980,960,544.39
△Net increase in pledge loans			
Net cash paid to acquire subsidiaries and other business units		7,881,970,462.81	942,798,240.27
Cash paid for other investing activities		24,611,958,479.85	35,003,435,912.94
Sub-total of cash outflows from investing activities		213,224,557,159.43	184,389,240,067.00
Net cash flows from investing activities		-155,469,855,253.12	-109,435,012,762.19
III. Cash flows from financing activities:			
Cash received from absorption of investments		80,612,201,877.88	54,510,466,824.95
Including: cash received by subsidiaries from investment by minority shareholders		16,662,201,877.88	19,011,141,839.04
Cash received from borrowings		537,048,572,062.88	467,369,715,984.12
Cash received from other financing activities		22,144,357,610.99	36,075,651,274.11
Sub-total of cash inflows from financing activities		639,805,131,551.75	557,955,834,083.18
Cash paid for debts repayments		462,498,865,228.00	421,163,723,528.02
Cash paid for distribution of dividends and profits or payment of interest		42,625,913,547.13	41,424,826,377.89
Including: dividends or profits paid to minority shareholders by subsidiaries		6,745,497,765.23	6,456,848,481.65
Cash paid for other financing activities		39,593,617,150.00	22,329,872,671.63
Sub-total of cash outflows from financing activities		544,718,395,925.13	484,918,422,577.54
Net cash flows from financing activities		95,086,735,626.62	73,037,411,505.64
IV. Effect of fluctuation in exchange rate on cash and cash equivalents		304,345,125.61	103,372,791.39
V. Net increase in cash and cash equivalents	8.80	-5,015,509,147.92	5,112,681,466.98
Plus: beginning balance of cash and cash equivalents	8.80	24,193,262,514.89	19,080,581,047.91
VI. Ending balance of cash and cash equivalents	8.80	19,177,753,366.97	24,193,262,514.89

Remark: Items marked with △ are only used for financial enterprises.

The accompanying notes to the financial statements form an integral part of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Parent Company's Statement of Cash Flows
For the Year Ended December 31, 2020
(Amounts are expressed in RMB unless otherwise stated)

Item	Note	Year 2020	Year 2019
I. Cash flows from operating activities:			
Cash received from sale of goods and rendering of services		5,751,383,251.14	2,842,668,952.65
△Net increase in customer deposits and deposits from other banks and financial institutions		3,154,777,759.69	-3,451,330,730.39
△Net increase in borrowings from central bank			
△Net increase in loans from other financial institutions			
△Premiums received from original insurance contracts			
△Net cash received from reinsurance business			
△Net increase in deposits and investments from policyholders			
△Net increase received from disposal of financial assets measured at fair value through current profit or loss			
△Cash received from interest, handling charges and commissions			
△Net increase in loans from banks and other financial institutions			
△Net capital increase in repurchase business			
△Net cash from receivings from vicariously traded securities			
Refund of taxes and surcharges		324,093.94	138,233.67
Cash received from other operating activities		1,915,059,986.94	2,610,433,227.06
Sub-total of cash inflows from operating activities		9,131,545,091.71	2,001,909,682.99
Cash paid for goods purchased and services received		5,442,508,785.10	2,759,224,276.17
△Net increase in loans and advances to customers			
△Net increase in deposits in the central bank, other banks and financial institutions			
△Cash paid for original insurance contract claims			
△Net increase in loans to banks and other financial institutions			
△Cash paid for interest, handling charges and commissions		49,212,370.70	146,407,465.32
△Cash paid for policy dividends			
Cash paid to and on behalf of employees		356,631,311.50	394,794,197.10
Cash paid for taxes and surcharges		59,198,302.16	50,716,685.52
Cash paid for other operating activities		3,119,212,301.69	2,762,790,586.98
Sub-total of cash outflows from operating activities		9,026,763,071.15	6,113,933,211.09
Net cash flows from operating activities	12.6	104,782,020.56	-4,112,023,528.10
II. Cash flows from investing activities:			

Item	Note	Year 2020	Year 2019
Cash received from disposal of investments		12,736,720,000.00	15,858,609,301.09
Cash received from returns on investments		2,322,990,917.37	2,728,656,783.96
Net cash received from disposal of fixed assets, intangible assets and other long-term assets			
Net cash received from disposal of subsidiaries and other business units			
Cash received from other investing activities			
Sub-total of cash inflows from investing activities		15,059,710,917.37	18,587,266,085.05
Cash paid for purchase and construction of fixed assets, intangible assets and other long-term assets		29,208,197.72	56,314,963.50
Cash paid for investments		66,086,112,424.27	19,928,924,074.04
△Net increase in pledge loans			
Net cash paid to acquire subsidiaries and other business units			
Cash paid for other investing activities		55,931,119.97	4,094,592.64
Sub-total of cash outflows from investing activities		66,171,251,741.96	19,989,333,630.18
Net cash flows from investing activities		-51,111,540,824.59	-1,402,067,545.13
III. Cash flows from financing activities:			
Cash received from absorption of investments		63,900,000,000.00	25,000,000,000.00
Cash received from borrowings		153,039,942,633.04	206,200,057,366.96
Cash received from other financing activities		8,746,332,785.58	44,473,731,962.48
Sub-total of cash inflows from financing activities		225,686,275,418.62	275,673,789,329.44
Cash paid for debts repayments		154,528,807,000.00	210,738,701,618.66
Cash paid for distribution of dividends and profits or payment of interest		5,933,312,929.60	7,763,576,770.63
Cash paid for other financing activities		15,605,518,959.61	51,929,088,003.38
Sub-total of cash outflows from financing activities		176,067,638,889.21	270,431,366,392.67
Net cash flows from financing activities		49,618,636,529.41	5,242,422,936.77
IV. Effect of fluctuation in exchange rate on cash and cash equivalents			
V. Net increase in cash and cash equivalents	12.6	-1,388,122,274.62	-271,668,136.46
Plus: beginning balance of cash and cash equivalents	12.6	1,734,802,021.16	2,006,470,157.62
VI. Ending balance of cash and cash equivalents	12.6	346,679,746.54	1,734,802,021.16

Remark: Items marked with △ are only used for financial enterprises.

The accompanying notes to the financial statements form an integral part of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Consolidated Statement of Changes in Owners' Equity
For the Year Ended December 31, 2020
(Amounts are expressed in RMB unless otherwise stated)

Item	Year 2020													
	Equity attributable to owners of the parent company												Minority equity	Total owners' equity
	Paid-in capital (or share capital)	Other equity instruments			Capital reserves	Less: treasury stocks	Other comprehensive income	Special reserves	Surplus reserves	ΔGeneral risk reserves	Undistributed profits	Sub-total		
		Preferred stock	Perpetual bonds	Others										
I. Balance at the end of the last year	35,000,000,000.00		52,766,185,754.59		17,574,090,051.31		-248,912,253.58	180,259,763.35			2,879,683,025.90	108,151,306,341.57	181,709,333,304.97	289,860,639,646.54
Plus: adjustments for changes in accounting policies														
Correction of accounting errors in prior period														
Others														
II. Balance at the beginning of the current year	35,000,000,000.00		52,766,185,754.59		17,574,090,051.31		-248,912,253.58	180,259,763.35			2,879,683,025.90	108,151,306,341.57	181,709,333,304.97	289,860,639,646.54
III. Increases/decreases in the current year ("-" for decreases)			57,379,851,209.67		1,574,766,501.90		-1,001,008,381.82	-7,791,174.66			-2,453,659,745.16	55,492,158,409.93	5,839,371,014.88	61,331,529,424.81
(I) Total comprehensive income							-1,000,212,895.89				2,371,908,626.88	1,371,695,730.99	10,813,291,998.30	12,184,987,729.29
(II) Capital contributed or reduced by owners			57,379,851,209.67		1,574,766,501.90						-632,577,743.96	58,322,039,967.61	1,880,346,686.36	60,202,386,653.97
1. Common stock contributed by owners					688,893,858.07							688,893,858.07	12,385,851,623.62	13,074,745,481.69
2. Capital contributed by the holders of other equity instruments			57,379,851,209.67									57,379,851,209.67	2,000,000,000.00	59,379,851,209.67
3. Amount of share-based payments recognized in owners' equity														
4. Others					885,872,643.83						-632,577,743.96	253,294,899.87	-12,505,504,937.26	-12,252,210,037.39
(III) Withdrawal and use of special reserves								-7,791,174.66				-7,791,174.66	-16,958,010.12	-24,749,184.78
1. Withdrawal of special reserves								878,532,700.92				878,532,700.92	625,337,618.95	1,503,870,319.87
2. Use of special reserves								-886,323,875.58				-886,323,875.58	-642,295,629.07	-1,528,619,504.65
(IV) Profit distribution											-4,193,786,114.01	-4,193,786,114.01	-6,837,309,659.66	-11,031,095,773.67
1. Withdrawal of surplus reserves														
Including: statutory reserve funds														
Discretionary reserve funds														
#Reserve funds														
#Enterprise expansion funds														

Item	Year 2020													
	Equity attributable to owners of the parent company													
	Paid-in capital (or share capital)	Other equity instruments			Capital reserves	Less: treasury stocks	Other comprehensive income	Special reserves	Surplus reserves	△General risk reserves	Undistributed profits	Sub-total	Minority equity	Total owners' equity
		Preferred stock	Perpetual bonds	Others										
#Profit capitalized on return of investments														
△2. Withdrawal of general risk reserves														
3. Profit distributed to owners (or shareholders)											-209,402,400.00	-209,402,400.00	-6,837,309,659.66	-7,046,712,059.66
4. Others											-3,984,383,714.01	-3,984,383,714.01		-3,984,383,714.01
(V) Internal carry-forward of owners' equity							-795,485.93				795,485.93			
1. Conversion of capital reserves into paid-in capital (or share capital)														
2. Conversion of surplus reserves into paid-in capital (or share capital)														
3. Surplus reserves offsetting losses														
4. Carry-forward of changes in the defined benefit plan for retained earnings														
☆5. Carry-forward of other comprehensive income for retained earnings							-795,485.93				795,485.93			
6. Others														
IV. Balance at the end of the current year	35,000,000,000.00		110,146,036,964.26		19,148,856,553.21		-1,249,920,635.40	172,468,588.69			426,023,280.74	163,643,464,751.50	187,548,704,319.85	351,192,169,071.35

Remark: Items marked with △ are for financial enterprises only; items marked with # are for foreign-invested enterprises purpose only; items marked with ☆ are for enterprises implementing the standards for the new financial instruments.

The accompanying notes to the financial statements form an integral part of the financial statements.

Legal Representative: 钟智民 Accounting Principal: [illegible] Head of the Accounting Department: [illegible]

State Power Investment Corporation Limited
Consolidated Statement of Changes in Owners' Equity (Continued)
For the Year Ended December 31, 2020
(Amounts are expressed in RMB unless otherwise stated)

Item	Year 2019													
	Equity attributable to owners of the parent company													
	Paid-in capital (or share capital)	Other equity instruments			Capital reserves	Less: treasury stocks	Other comprehensive income	Special reserves	Surplus reserves	△General risk reserves	Undistributed profits	Sub-total	Minority equity	Total owners' equity
		Preferred stock	Perpetual bonds	Others										
I. Balance at the end of the last year	35,000,000,000.00		27,844,116,792.42		7,280,829,950.00		1,063,862,108.19	164,608,077.54			5,108,849,553.23	74,334,542,265.00	159,655,026,744.23	233,989,569,009.23
Plus: adjustments for changes in accounting policies											-14,195,470.45	-14,195,470.45	-17,343,194.26	-31,538,664.71
Correction of accounting errors in prior periods					-77,611,158.18						-287,625,345.52	-365,236,503.70	304,312,061.93	-60,924,441.77
Others							205,233,796.14				-218,308,419.62	-13,074,623.48	-181,556,227.46	-194,630,850.94
II. Balance at the beginning of the current year	35,000,000,000.00		27,844,116,792.42		7,203,218,791.82		-858,628,312.05	164,608,077.54			4,588,720,317.64	73,942,035,667.37	159,760,439,384.44	233,702,475,051.81
III. Increases/decreases in the current year ("-" for decreases)			24,922,068,962.17		10,370,871,259.49		609,716,058.47	15,651,685.81			-1,709,037,291.74	34,209,270,674.20	21,948,893,920.53	56,158,164,594.73
(I) Total comprehensive income							609,716,058.47				1,251,049,572.01	1,860,765,630.48	9,158,729,333.32	11,019,494,963.80
(II) Capital contributed or reduced by owners			24,922,068,962.17		10,370,871,259.49						-153,652,618.11	35,139,287,603.55	19,225,342,064.29	54,364,629,667.84
1. Common stock contributed by owners					10,081,936,684.59							10,081,936,684.59	13,055,706,580.56	23,137,643,265.15
2. Capital contributed by the holders of other equity instruments			24,922,068,962.17									24,922,068,962.17	4,434,038,380.48	29,356,107,342.65
3. Amount of share-based payments recognized in owners' equity														
4. Others					288,934,574.90						-153,652,618.11	135,281,956.79	1,735,597,103.25	1,870,879,060.04
(III) Withdrawal and use of special reserves								15,651,685.81				15,651,685.81	21,671,004.57	37,322,690.38
1. Withdrawal of special reserves								794,488,069.91				794,488,069.91	729,768,065.20	1,524,256,135.11
2. Use of special reserves								-778,836,384.10				-778,836,384.10	-708,097,060.63	-1,486,933,444.73
(IV) Profit distribution											-2,861,924,226.43	-2,861,924,226.43	-6,456,848,481.65	-9,318,772,708.08
1. Withdrawal of surplus reserves														
Including: statutory reserve funds														
Discretionary reserve funds														
#Reserve funds														
#Enterprise expansion funds														
#Profit capitalized on return of investments														
△2. Withdrawal of general risk reserves														
3. Profit distributed to owners (or shareholders)											-257,304,200.00	-257,304,200.00	-6,456,848,481.65	-6,714,152,681.65
4. Others											-2,604,620,026.43	-2,604,620,026.43		-2,604,620,026.43
(V) Internal carry-forward of owners' equity											55,489,980.79	55,489,980.79		55,489,980.79
1. Conversion of capital reserves into paid-in capital (or share capital)														

Item	Year 2019													
	Equity attributable to owners of the parent company												Minority equity	Total owners' equity
	Paid-in capital (or share capital)	Other equity instruments			Capital reserves	Less: treasury stocks	Other comprehensive income	Special reserves	Surplus reserves	△General risk reserves	Undistributed profits	Sub-total		
		Preferred stock	Perpetual bonds	Others										
2. Conversion of surplus reserves into paid-in capital (or share capital)														
3. Surplus reserves offsetting losses														
4. Carry-forward of changes in the defined benefit plan for retained earnings														
☆5. Carry-forward of other comprehensive income for retained earnings							-55,489,980.79				55,489,980.79			
6. Others							55,489,980.79					55,489,980.79		55,489,980.79
IV. Balance at the end of the current year	35,000,000,000.00		52,766,185,754.59		17,574,090,051.31		-248,912,253.58	180,259,763.35			2,879,683,025.90	108,151,306,341.57	181,709,333,304.97	289,860,639,646.54

Remark: Items marked with △ are for financial enterprises only; items marked with # are for foreign-invested enterprises purpose only; items marked with ☆ are for enterprises implementing the standards for the new financial instruments.

The accompanying notes to the financial statements form an integral part of the financial statements.

Legal Representative: 钱智民 Accounting Principal: [illegible] Head of the Accounting Department: [illegible]

State Power Investment Corporation Limited
Parent Company's Statement of Changes in Owners' Equity
For the Year Ended December 31, 2020
(Amounts are expressed in RMB unless otherwise stated)

Item	Year 2020											
	Paid-in capital (or share capital)	Other equity instruments			Capital reserves	Less: treasury stocks	Other comprehensive income	Special reserves	Surplus reserves	△General risk reserves	Undistributed profits	Total owners' equity
		Preferred stock	Perpetual bonds	Others								
I. Balance at the end of the last year	35,000,000,000.00		52,766,185,754.59		613,358,860.50		1,358,542,879.82				15,481,331,304.46	105,219,418,799.37
Plus: adjustments for changes in accounting policies												
Correction of accounting errors in prior period												
Others												
II. Balance at the beginning of the current year	35,000,000,000.00		52,766,185,754.59		613,358,860.50		1,358,542,879.82				15,481,331,304.46	105,219,418,799.37
III. Increases/decreases in the current year ("-" for decreases)			57,379,851,209.67				23,887,598.16				3,159,279,910.97	60,563,018,718.80
(I) Total comprehensive income							23,887,598.16				5,857,799,068.05	5,881,686,666.21
(II) Capital contributed or reduced by owners			57,379,851,209.67									57,379,851,209.67
1. Common stock contributed by owners												
2. Capital contributed by the holders of other equity instruments			57,379,851,209.67									57,379,851,209.67
3. Amount of share-based payments recognized in owners' equity												
4. Others												
(III) Withdrawal and use of special reserves												
1. Withdrawal of special reserves												
2. Use of special reserves												
(IV) Profit distribution											-2,698,519,157.08	-2,698,519,157.08
1. Withdrawal of surplus reserves												
Including: statutory reserve funds												

Item	Year 2020											
	Paid-in capital (or share capital)	Other equity instruments			Capital reserves	Less: treasury stocks	Other comprehensive income	Special reserves	Surplus reserves	△General risk reserves	Undistributed profits	Total owners' equity
		Preferred stock	Perpetual bonds	Others								
Discretionary reserve funds												
#Reserve funds												
#Enterprise expansion funds												
#Profit capitalized on return of investments												
△2. Withdrawal of general risk reserves												
3. Profit distributed to owners (or shareholders)											-209,402,400.00	-209,402,400.00
4. Others											-2,489,116,757.08	-2,489,116,757.08
(V) Internal carry-forward of owners' equity												
1. Conversion of capital reserves into paid-in capital (or share capital)												
2. Conversion of surplus reserves into paid-in capital (or share capital)												
3. Surplus reserves offsetting losses												
4. Carry-forward of changes in the defined benefit plan for retained earnings												
☆5. Carry-forward of other comprehensive income for retained earnings												
6. Others												
IV. Balance at the end of the current year	35,000,000,000.00		110,146,036,964.26		613,358,860.50		1,382,430,477.98				18,640,611,215.43	165,782,437,518.17

Remark: Items marked with △ are for financial enterprises only; items marked with # are for foreign-invested enterprises purpose only; items marked with ☆ are for enterprises implementing the standards for the new financial instruments.

The accompanying notes to the financial statements form an integral part of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Parent Company's Statement of Changes in Owners' Equity (Continued)
For the Year Ended December 31, 2020
(Amounts are expressed in RMB unless otherwise stated)

Item	Year 2019											
	Paid-in capital (or share capital)	Other equity instruments			Capital reserves	Less: treasury stocks	Other comprehensive income	Special reserves	Surplus reserves	△General risk reserves	Undistributed profits	Total owners' equity
		Preferred stocks	Perpetual bonds	Others								
I. Balance at the end of the last year	35,000,000,000.00		27,844,116,792.42		766,936,862.40						10,990,521,807.64	74,601,575,462.46
Plus: adjustments for changes in accounting policies												
Correction of accounting errors in prior period												
Others												
II. Balance at the beginning of the current year	35,000,000,000.00		27,844,116,792.42		766,936,862.40						10,990,521,807.64	74,601,575,462.46
III. Increases/decreases in the current year ("-" for decreases)			24,922,068,962.17		-153,578,001.90		1,358,542,879.82				4,490,809,496.82	30,617,843,336.91
(I) Total comprehensive income							1,358,542,879.82				6,116,040,788.38	7,474,583,668.20
(II) Capital contributed or reduced by owners			24,922,068,962.17		-153,578,001.90							24,768,490,960.27
1. Common stock contributed by owners												
2. Capital contributed by the holders of other equity instruments			24,922,068,962.17									24,922,068,962.17
3. Amount of share-based payments recognized in owners' equity												
4. Others					-153,578,001.90							-153,578,001.90
(III) Withdrawal and use of special reserves												
1. Withdrawal of special reserves												
2. Use of special reserves												
(IV) Profit distribution											-1,625,231,291.56	-1,625,231,291.56
1. Withdrawal of surplus reserves												
Including: statutory reserve funds												

Item	Year 2019											
	Paid-in capital (or share capital)	Other equity instruments			Capital reserves	Less: treasury stocks	Other comprehensive income	Special reserves	Surplus reserves	△General risk reserves	Undistributed profits	Total owners' equity
		Preferred stocks	Perpetual bonds	Others								
Discretionary reserve funds												
#Reserve funds												
#Enterprise expansion funds												
#Profit capitalized on return of investments												
△2. Withdrawal of general risk reserves												
3. Profit distributed to owners (or shareholders)											-257,304,200.00	-257,304,200.00
4. Others											-1,367,927,091.56	-1,367,927,091.56
(V) Internal carry-forward of owners' equity												
1. Conversion of capital reserves into paid-in capital (or share capital)												
2. Conversion of surplus reserves into paid-in capital (or share capital)												
3. Surplus reserves offsetting losses												
4. Carry-forward of changes in the defined benefit plan for retained earnings												
☆5. Carry-forward of other comprehensive income for retained earnings												
6. Others												
IV. Balance at the end of the current year	35,000,000,000.00		52,766,185,754.59		613,358,860.50		1,358,542,879.82				15,481,331,304.46	105,219,418,799.37

Remark: Items marked with △ are for financial enterprises only; items marked with # are for foreign-invested enterprises purpose only; items marked with ☆ are for enterprises implementing the standards for the new financial instruments.

The accompanying notes to the financial statements form an integral part of the **financial statements.**

Legal Representative: 钟智民　　Accounting Principal: 陈小如　　Head of the Accounting Department: 张艳丽

State Power Investment Corporation Limited
Notes to the Financial Statements
For the Year Ended December 31, 2020
(Amounts are expressed in RMB unless otherwise stated)

1 Company profile

State Power Investment Corporation Limited (hereinafter referred to as the "Group Company", "the Group", "the Company" or the "Company") was established in June 2015 through the reorganization of China Power Investment Corporation and State Nuclear Power Technology Corporation.

China Power Investment Corporation is a state-owned enterprise established based on partial enterprises and public institutions of the former State Power Corporation in accordance with the Official Reply of the State Council to Issues concerning the Establishment of China Power Investment Corporation (GH [2003] No. 17) in the process of national electricity system reform, a pilot institution and national holding company in which the State Council agrees to authorize the investment and one of the five largest state-owned power generation enterprise groups. It was formally established on December 29, 2002 pursuant to the spirit of the Circular of the State Council on Issuing the Plan for the Power System Reform (GF [2002] No. 5). In December 2017, the Group Company was transformed from an enterprise owned by the whole people to a wholly state-owned company. According to the Official Reply of the State-owned Assets Supervision and Administration Commission of the State Council (GZGG [2017] No. 1090), the registered capital was adjusted from RMB 45 billion to RMB 35 billion.

Approved by the State Council, State Nuclear Power Technology Corporation is a limited liability company jointly invested and established by the State-owned Assets Supervision and Administration Commission of the State Council, China National Nuclear Corporation, China Power Investment Corporation (now renamed as "State Power Investment Corporation Limited"), China Guangdong Nuclear Power Group Co., Ltd. (now renamed as "China General Nuclear Power Corporation") and China National Technical Imp. & Exp. Corp. in May 2007 in Beijing.

The Group Company is located at Building 1, Courtyard 29, North Third Ring Middle Road, Xicheng District, Beijing; legal representative: Qian Zhimin; registered capital: RMB 35 billion; unified social credit code: 911100007109310534.

The Group Company is an integrated energy group with power as its core. It has a total installed capacity of 176 GW including 87.0247 GW of thermal power, 24.01 GW of hydropower, 6.98 GW of nuclear power, 29.612 GW of solar power and 30.8780 GW of wind power, with clean energy accounting for 56.09% of the total, with the scale of clean energy greater than that of coal-fired power for the first time. It supplies 579,954 GWh of power and 215 million GJ of heat per annum. It also owns a coal production capacity of 84.30 million tons per year (t/y), aluminum smelting capacity of 2.45 million t/y and railway transportation line of 627 km.

Being one of China's three nuclear power developers and operators, the Group Company owns a number of nuclear power plants (NPPs) under construction or in operation, such as Hongyanhe NPP in Liaoning Province, and Haiyang and Rongcheng NPPs in Shandong Province. It has also reserved several project sites in both inland and coastal areas of China.

It has presence in 45 countries and regions such as Japan, Australia, Malta, India, Turkey, South Africa, Pakistan, Brazil and Myanmar, with businesses covering power project investment, technical cooperation, EPC, etc. It has 6.058 GW of controllable overseas projects in operation (holding capacity of 5.5619 GW) and 1.63 GW under construction (excluding Yijiang project in Myanmar), with clean energy accounting for 65%.

It has 5 A-share listed companies: Shanghai Electric Power Co., Ltd. (600021), SPIC Yuanda Environmental Protection Co., Ltd. (600292), Jilin Electric Power Co., Ltd. (000875), Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia (002128) and SPIC Dongfang New Energy Corporation (000958); it owns one red chip: China Power International Development Limited (HK2380); it owns 2 companies listed on the NEEQ: SPIC Xianrong Futures Co., Ltd. (870115) and SPIC Guizhou Jinyuan Weining Energy Co., Ltd. (Weining Energy 873359).

The financial report of the Company was approved for disclosure at the 16th meeting of the second Board of Directors.

2 Preparation basis for financial statements

The Company prepares its financial statements in accordance with *the Accounting Standards for Business Enterprises - Basic Standards* issued by the Ministry of Finance and all the specific accounting standards, Application Guidance to the Accounting Standards for Business Enterprises, the interpretation of the Accounting Standards for Business Enterprises and other relevant provisions (hereinafter collectively referred to as the "Accounting Standards for Business Enterprises").

The financial statements of the Company have been prepared on a going concern basis.

3 Statement on compliance with the Accounting Standards for Business Enterprises

The financial statements meet the requirements of the Accounting Standards for Business Enterprises issued by the Ministry of Finance, and truly and completely reflect the consolidated and the parent company's financial position of the Company as at December 31, 2020, and the consolidated and the parent company's operating results and cash flows for the year then ended.

4 Significant accounting policies and accounting estimates

In 2017, the Ministry of Finance promulgated the revised *Accounting Standards for Business Enterprises No. 22 - Recognition and Measurement of Financial Instruments*, *Accounting Standards for Business Enterprises No. 23 - Transfer of Financial Assets, Accounting Standards for Business Enterprises No. 24 - Hedge Accounting and Accounting Standards for Business Enterprises No. 37 - Presentation of Financial Instruments (Revised in 2017)* (hereinafter referred to as the "New Standards for Financial Instruments"). According to the New Standards for Financial Instruments, the companies listed at home and abroad at the same time and those which are listed abroad and prepare financial reports according to the International Financial Reporting Standards or the Accounting Standards for Business Enterprises shall implement the New Standards for Financial Instruments as of January 1, 2018; other companies listed at home will implement the New Standards for Financial Instruments as of January 1, 2019; non-listed companies that implement Accounting Standards for Business Enterprises will implement New Standards for Financial Instruments as of January 1, 2021.

In 2017, the Ministry of Finance promulgated the revised *Accounting Standards for Business Enterprises No. 14 - Revenues* (hereinafter referred to as the "New Standards for Revenues"). According to the New Standards for Revenues, the companies listed at home and abroad at the same time and those which are listed abroad and prepare financial reports according to the International Financial Reporting Standards or the Accounting Standards for Business Enterprises shall implement the New Standards for Revenues as of January 1, 2018; other companies listed at home will implement the New Standards for Revenues as of January 1, 2020; non-listed companies that implement Accounting Standards for Business Enterprises will implement New Standards for Revenues as of January 1, 2021.

In 2018, the Ministry of Finance promulgated the revised *Accounting Standards for Business Enterprises No. 21 - Leases* (hereinafter referred to as the "New Standards for Leases"). According to the New Standards for Leases, the companies listed at home and abroad at the same time and those which are listed abroad and prepare financial reports according to the International Financial Reporting Standards or the Accounting Standards for Business Enterprises shall implement the New Standards for Leases as of January 1, 2019; other companies that implement Accounting Standards for Business Enterprises will implement New Standards for Revenues as of January 1, 2021. The enterprises whose parent company or subsidiary is listed overseas and whose overseas financial statements are prepared in accordance with International Financial Reporting Standards or Accounting Standards for Business Enterprises may implement these Standards in advance, but not earlier than the date when they simultaneously implement the New Standards for Financial Instruments and the New Standards for Revenues.

According to the Ministry of Finance 's *Notice on Revising and Issuing the Accounting Standards for Business Enterprises No. 14 - Revenue* and other relevant provisions, where the parent company implements the New Standards but the subsidiary has not yet implemented the same, the parent company shall adjust the financial statements of subsidiaries in accordance with the New Standards when preparing the consolidated financial statements. Where the parent company has not implemented the New Standards but the subsidiary has done so, when preparing the consolidated financial statements, the parent company may either consolidate the subsidiary's financial statements in accordance with the parent company's accounting policies or directly consolidate the subsidiary's financial statements prepared in accordance with the New Standards. If the parent company adopts the latter, the facts shall be disclosed in the consolidated financial statements, and the accounting policies of the parent company and the subsidiary and other relevant information shall be disclosed separately.

The Company and its subsidiaries within the scope of consolidation implement the New Standards as follows:

Name of company	New Standards for Financial Instruments	New Standards for Revenues	New Standards for Leases
State Power Investment Corporation Limited (the parent company)	Not yet implemented	Not yet implemented	Not yet implemented
China Power International Development Limited	Implemented from January 1, 2018	Implemented from January 1, 2018	Implemented from January 1, 2019
Shanghai Electric Power Co., Ltd.	Implemented from January 1, 2019	Implemented from January 1, 2020	Not yet implemented
State Power Investment Corporation Yuanda Environmental Protection Co., Ltd.	Implemented from January 1, 2019	Implemented from January 1, 2020	Not yet implemented
Jilin Electric Power Co., Ltd.	Implemented from January 1, 2019	Implemented from January 1, 2020	Not yet implemented
Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia	Implemented from January 1, 2019	Implemented from January 1, 2020	Not yet implemented
SPIC Dongfang New Energy Corporation	Implemented from January 1, 2019	Implemented from January 1, 2020	Not yet implemented
SPIC Xianrong Futures Co., Ltd.	Implemented from January 1, 2019	Implemented from January 1, 2020	Not yet implemented

Name of company	New Standards for Financial Instruments	New Standards for Revenues	New Standards for Leases
SPIC Guizhou Jinyuan Weining Energy Co., Ltd.	Implemented from January 1, 2019	Implemented from January 1, 2020	Not yet implemented
SPIC Pacific Energy Pty Ltd	Implemented from January 1, 2018	Implemented from January 1, 2018	Implemented from January 1, 2019
SPIC Brazil Energia Participaçoes S.A.	Implemented from January 1, 2018	Implemented from January 1, 2018	Implemented from January 1, 2019
Other companies	Not yet implemented	Not yet implemented	Not yet implemented

When preparing consolidated financial statements, the Company directly consolidates the financial statements prepared by subsidiaries in accordance with the New Standards.

4.1 Accounting year

The accounting year is from January 1 to December 31 in calendar year.

4.2 Functional currency

The Company adopts RMB as its functional currency.

The Company's subsidiaries, joint ventures and associates determine their functional currencies by themselves in accordance with the main economic environment in which they operate and convert the accounts into the amount in RMB upon preparation of financial statements.

4.3 Accounting basis and measurement principle

The Company's accounts are prepared on an accrual basis and measured by following the historical cost convention unless otherwise stated.

4.4 Business combination

Business combinations of the Company are classified into business combination under common control and business combination not under common control.

4.4.1 Business combination under common control

Assets and liabilities acquired by the combiner from business combination are measured at book value of the combinee in the financial statements of the ultimate controllers on the combination date. Where accounting policies adopted by the combinee are inconsistent with those of the Company, the combiner will make adjustment according to the accounting policies of the Company on the combination date and recognize such policies based on the book value after adjustment.

The share premium in the capital reserve is adjusted according to the difference between the book value of net assets acquired through combination and the book value of consideration paid for the combination (or total par value of shares issued). If the share premium in the capital reserves is insufficient to cover the differences, the remaining amount shall be charged against retained earnings.

Various expenses occurred directly related to the business combination are included into the current profit or loss when they occur.

Handling fees and commissions, etc. paid for bonds issued for business combinations or undertaken for other debts are included in the initial measurement amount of the bonds issued and other debts. The handling charges, commissions and other expenses for the issuance of equity securities for the business combination are deducted from premium

income of the equity securities; if the premium income is insufficient to cover, the retained earnings shall be deducted.

The Company shall prepare the consolidated balance sheet, consolidated income statement and consolidated statement of cash flows at the combination date, and the consolidated income statement shall include the revenue, expenses and profit of the parties to the combination from the beginning of the period in which the combination happens to the combination date. The consolidated statement of cash flows shall include the cash flows of parties to the combination from the beginning of the combination to the combination date.

4.4.2 Business combination not under common control

The acquirer shall, on the acquisition date, measure the assets surrendered and liabilities incurred or assumed by the acquiree for business combination at their fair values. The difference between the fair value and their book value will be included into current profit or loss. The Company shall recognize the difference of the combination costs in excess of the fair value of the identifiable net assets acquired from the acquiree as goodwill. The Company shall recognize the difference of the combination costs in short of the fair value of the identifiable net assets acquired from the acquiree in the current profit or loss. The identifiable assets, liabilities and contingent liabilities of the acquiree that are obtained by the acquirer from combination and conform to the recognition criteria shall be measured at the fair value on the acquisition date. See the Note 4.35 Measurement of fair value for details of the measurement of the fair value.

For business combination not under common control, the direct expenses arising from the business combination are included in the current profit or loss upon occurrence. Trading expenses on issuing equity securities or debt securities for the business combination are included in the initially recognized amount of the equity securities or the debt securities.

Acquisition date refers to the date when the acquiser has actually obtained the control over the acquisee.

It can be generally judged that the control has been transferred when all of the following conditions are met:

1) The contract or agreement on business combination has been approved by a general meeting and other internal authority for examination and approval;

2) Where the business combination matters are subject to the examination and approval by the national competent authorities, the approval of related departments has been obtained;

3) The parties involved in the combination have handled necessary property rights transfer formalities;

4) The acquirer has paid most (generally over 50%) of the combination price and has the ability to repay the remaining payment in a planned way;

5) The acquirer actually has taken control of the acquiree's financial and operating policies and enjoys the corresponding benefits and bears the corresponding risks.

Determination method of the disposal date: generally take the time-point at which lose the right of control as the time-point of the disposal date after the judgment about the completion of the transaction.

4.5 Method of preparation for the consolidated financial statements

4.5.1 Scope of consolidation

The scope of consolidation for the consolidated financial statements is determined based on control. The Company and all its subsidiaries are included in the scope of consolidation thereof.

Control means the power owned over the investee by the Company which enjoys the variable return through participating in activities related to the investee, and has the ability to affect the return by using the power over the investee.

4.5.2 Procedures for consolidation

The Company regards the entire enterprise group as an accounting entity and prepares consolidated financial statements in accordance with unified accounting policies to reflect the overall financial status, operating results and cash flow of the enterprise group. Affect of internal transactions between the Company and subsidiaries and among subsidiaries will be offset. If the internal transaction indicates that the relevant assets have impairment losses, the losses shall be fully recognized.

Where accounting policies and accounting periods adopted by subsidiaries are inconsistent with those of the Company, necessary adjustments should be made according to the accounting policies and accounting periods of the Company when preparing the consolidated financial statements.

Subsidiary's owners' equity, net profit or loss and the share of comprehensive income in the current period attributable to minority shareholders will be separately listed under the owners' equity in the consolidated balance sheet, net profit in the consolidated income statement and total comprehensive income. If the current losses shared by the minority shareholder of a subsidiary exceed the balances arising from the shares enjoyed by the minority shareholder in the owners' equity of the subsidiary at the beginning of the period, minority equity will be written down accordingly.

(1) Increase of subsidiaries or business

During the reporting period, where the Company acquired subsidiaries or business from the business combination under common control, the operating results and cash flows of the newly acquired subsidiaries or business from the beginning of the period for business combination to the end of the reporting period are included in the consolidated financial statements; the beginning amount of the consolidated financial statements and relevant items in the comparative statements are adjusted accordingly, as if the reporting entity after the business combination exists as of the time when the ultimate controller has the control.

Where control can be exercised on the investee under the common control for additional investment or other reasons, equity investments held before the control over the combined party is obtained, the related profits or losses, other comprehensive income as well as other changes in net assets recognized from the later between the date when the original equity is obtained and the date when the acquirer and the acquiree are under common control to the combination date will respectively write down the beginning retained earnings or the current profit or loss during the period for comparing financial statements.

During the reporting period, the Company has acquired the subsidiaries or business from the business combination not under common control, they are included in the consolidated financial statements based on the fair values of various identifiable assets, liabilities and contingent liabilities recognized on the acquisition date.

Where the Company can implement control over an investee not under common control due to additional investment or other reasons, the equity held by the combinee before the purchase date is remeasured at the fair value on the purchase date of the equity, and the difference between the fair value and the book value shall be included in the current investment income. Where the equity of acquiree held by the Company before the purchase date involves other comprehensive income accounted for under the equity method and there is any change in owners' equity other than net profit or loss, other comprehensive income and profit distribution, the relevant other comprehensive income and other owners' equity change shall be transferred to the current investment income for the purchase date.

(2) Disposal of subsidiaries or business

① General treatment methods

For the remaining equity investments after the disposal, the Company will re-measure the same at the fair value on the date when it loses control over the investee due to disposal of partial equity investment or other reasons. The difference of total amount of the consideration from disposal of equities plus the fair value of the remaining equities less the shares calculated at the original shareholding ratio in net assets and goodwill of the original subsidiary which are continuously calculated as of the acquisition date or combination date is included in the investment income of the period at the loss of control. Other comprehensive incomes reclassified into profits or losses later and other changes in the owner's equity under the equity method, associated with the equity investments of the original subsidiary, are transferred into investment income of the period when control is lost.

② Disposal of subsidiaries by stages

If the control is lost due to disposal of the equity investments in subsidiaries through multiple transactions by stages, and the terms, conditions and economic impact of the transactions related to the disposal of equity investments in subsidiaries meet one or more of the following circumstances, it usually indicates that multiple transactions will be treated a package deal:

i. These transactions are concluded at the same time or under the consideration of mutual effect;

ii. These transactions as a whole can reach a complete business result;

iii. The occurrence of a transaction depends on that of at least one other transactions; and/or

iv. A single transaction is uneconomical but it is economical when considered together with other transactions.

Where various transactions belong to a package deal, accounting treatment shall be made by the Company on the transactions as a transaction to dispose subsidiaries and lose the control; the difference between each disposal cost and net asset share in the subsidiaries corresponding to each disposal of investments before loss of the control

should be recognized as other comprehensive income in the consolidated financial statements and should be transferred into the current profit or loss at the loss of the control.

When these transactions belong to a package of transactions, before the control loses, the partial disposal of equity investments in subsidiaries without losing control shall be subject to the accounting treatments; at the loss of the control, accounting treatment shall be made according to general treatment methods for disposal of subsidiaries.

(3) Purchase of minority interest of subsidiaries
The share premium in the capital reserves under the consolidated balance sheet will be adjusted at the difference between the long-term equity investment acquired by the Company for the purchase of minority interest and the share of net assets calculated constantly from the acquisition date (or combination date) according to the newly increased shareholding ratio. Where the share premium is insufficient to offset, retained earnings will be adjusted.

(4) Partial disposal of equity investments in subsidiaries without loss of control
The equity premium of capital reserves in the consolidated balance sheet will be adjusted according to the difference between the disposal price and the share of net assets of subsidiaries calculated from the acquisition date or the combination date corresponding to the disposal of long-term equity investments; if the equity premium of capital reserves is insufficient, the retained earnings will be adjusted.

4.6 Classification of joint venture arrangements and accounting treatment methods of joint operation

Joint venture arrangements are classified into joint operation and joint venture.

Joint operation refers to joint arrangement where the joint venturer may have assets thereof and undertake liabilities thereof.

The Company recognizes the following items related to its share of benefits in the joint operation:

(1) Assets peculiar to the Company and assets jointly owned by the Company based on shares held;

(2) Liabilities it solely assumes and its share of jointly-assumed liabilities based on its percentage;

(3) Revenues from sale of output enjoyed by it from the joint operation;

(4) Revenues from sale of output from the joint operation based on its percentage; and

(5) Separate costs and costs for the joint operation based on its percentage.

See Note 4.14 Long-term equity investments for the Company's investments in joint ventures are accounted for by the equity method.

4.7 Recognition criteria of cash and cash equivalents

Cash refers to the Company's cash on hand and the unrestricted deposits; Cash equivalents refer to short-term and highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of change in value.

4.8 Foreign currency transactions and translation of foreign currency financial statements

4.8.1 Foreign currency transactions

Foreign currency amount will be translated into RMB amount at the spot exchange rate on the transaction date for tally.

The balance of foreign currency items on the balance sheet date are measured at the spot exchange rate on the balance sheet date. The exchange difference arising therefrom is included in the current profit or loss, while other exchange difference arising from the special borrowings of foreign currency related to the acquired and constructed assets qualified to capitalization is dealt with according to the principle of borrowing capitalization. Foreign currency non-monetary items measured at historical costs shall be converted at the spot exchange rates on the date when transactions occur on the balance sheet date; foreign currency non-monetary items measured at fair value shall be translated at the spot exchange rates on the day when the fair value is determined. For the exchange difference arising therefrom, those belongs to the difference from the equity instrument investments designated to be measured at fair value through other comprehensive income will be included in other comprehensive income and other difference will be included in the current profit or loss.

4.8.2 Translation of foreign currency financial statements

Assets and liabilities in the balance sheet are translated at the spot exchange rates on the balance sheet date. Owners' equity items, except for the item of "undistributed profits", are translated at the spot exchange rates on the dates when the transactions occur.

Revenue and expenses presented in the income statement are translated at the spot exchange rate on the date when relevant transactions occur.

Items in the statement of cash flows are translated at the spot exchange rate on the date when these cash flows occur. The cash amount affected due to the fluctuation in exchange rate shall, as an adjustment item, be separately presented as "effect of fluctuation in exchange rate on cash and cash equivalents" in the statement of cash flows.

Differences arising from the translation of financial statements are presented as "other comprehensive receivable" under the owners' equity in the balance sheet.

Where the Company disposes of an overseas business, it shall transfer the exchange difference relating to the business disposed of from the owners' equity to the current profit or loss.

4.9 Financial Instruments

Financial instruments of the Company include financial assets, financial liabilities and equity instruments.

Companies that have not implemented new standards for financial instruments

1 Classification of financial instruments

At the initial recognition, financial assets and financial liabilities are classified into: financial assets or financial liabilities measured at fair value through the current profit or loss, including financial assets or financial liabilities held for trading and financial assets or financial liabilities directly designated to be measured at fair value through the current profit or loss; held-to-maturity investments; receivables; available-for-sale financial assets; and other financial liabilities.

2 Recognition basis and measurement method of financial instruments

(1) Financial assets (financial liabilities) measured at fair value through current profit or loss

Financial assets (financial liabilities) measured at fair value through the current profit or loss are initially recognized at the fair value (deducting cash dividends that have been declared but not distributed or bond interest that has matured but not been drawn) at acquisition and the related transaction costs are included in the current profit or loss.

The interest or cash dividend received is recognized as investment income during the holding period. The change in fair value is included in the current profit or loss at the end of the period.

Difference between the fair value and initial book-entry value is recognized as investment income at disposal; meanwhile, the profit or loss from the change in fair value is adjusted.

(2) Held-to-maturity investments

Held-to-maturity investments are initially recognized at the sum of the fair value (deducting bond interest that has matured but not been drawn) and relevant transaction costs.

The interest income is calculated and recognized according to amortized costs and effective interest rates (as per coupon rates if the difference between effective interest rates and coupon rates is small) during the holding period, and is included in the investment income. The effective interest rates are determined at acquisition and remain unchanged during the expected remaining period, or a shorter period if applicable.

Difference between the proceeds and the book value of the investment is recognized as investment income at disposal.

(3) Receivables

For creditor's rights receivable arising from external sales of goods or rendering of service by the Company and other creditor's rights of other enterprises (excluding liability instruments quoted in an active market) held by the Company, including accounts receivable, other receivables and others, the initial recognition amount are the contract price or agreement price receivable from purchasing party; for those with financing nature, they are initially recognized at their present values.

At recovery or disposal, the difference between the purchase price and the book value of the receivables is included in the current profit or loss.

(4) Available-for-sale financial assets

Amount of available-for-sale financial assets is initially recognized at the sum of the fair value (deducting net of cash dividends declared but not yet distributed or bond interest that has matured but not been drawn) and related transaction expenses at acquisition.

The interest or cash dividend received will be recognized as investment income during the holding period. The change in fair value is included in the current profit or loss at the end of the period. However, the equity instrument investments for which there is no quotation in an active market and whose fair

value cannot be measured reliably, and the derivative financial assets which are connected with the said equity instrument and must be settled by delivering the said equity instrument shall be measured on the basis of their costs.

Difference between the proceeds and the book value of the financial assets is included in investment profit or loss at disposal; meanwhile, the amount of disposal corresponding to the accumulated change in fair value which was originally and directly included in other comprehensive income is transferred out and included in the current profit or loss.

(5) Other financial liabilities
Other financial liabilities are initially recognized at the sum of fair value and transaction expenses. Amortized cost is used for subsequent measurement.

3 Recognition basis and measurement method of the transfer of financial assets

When a financial assets transfer occurs, the financial assets will be derecognized when substantially all the risks and rewards on the ownership of the financial assets have been transferred to the transferee; and they will not be derecognized if substantially all the risks and rewards on the ownership of the financial assets have been retained.

The principle of substance over form is adopted to determine whether the transfer of a financial asset meets the above derecognition conditions for the financial assets. The Company divides the transfer of financial assets into overall transfer and partial transfer. Where the entire transfer of financial assets meets the derecognition conditions, the difference of the following two amounts shall be included in the current profit or loss:

(1) Book value of the transferred financial asset;

(2) The sum of consideration received from the transfer, and the accumulated change amount of fair value originally recorded in owners' equity (the financial assets involved in the transfer are available-for-sale financial assets).

If the partial transfer of financial asset satisfies the criteria for derecognition, the entire book value of the transferred financial asset shall be split into the derecognized and recognized parts according to their respective fair values and the difference between the amounts of the following two items shall be included in the current profit or loss:

(1) The book value of the derecognized part;

(2) The sum of the consideration for the derecognized part and the portion of derecognition corresponding to the accumulated amount of the changes in fair value originally and directly included in owners' equity (the situation where the financial asset transferred is an available-for-sale financial asset is involved).

If the transfer of financial assets does not meet the derecognition criteria, the financial assets shall continue to be recognized, and the consideration received shall be recognized as a financial liability.

4 Derecognition conditions for financial liabilities

Where the present obligations of financial liabilities have been discharged in whole or in part, the financial liabilities or any part thereof shall be derecognized; if the Company signs an agreement with creditors to replace the existing financial liabilities by undertaking new financial liabilities, and the new financial liabilities are substantially different from the existing ones in terms of contract terms, the existing financial liabilities shall be derecognized, and at the same time, the new financial liabilities shall be recognized.

Where substantive changes are made to the contract terms of existing financial liabilities in whole or in part, the existing financial liabilities shall be derecognized in whole or in part, and the financial liabilities of which terms have been modified shall be recognized as the new financial liabilities.

Where financial liabilities are derecognized is whole or in part, the difference between the book value of the financial liabilities derecognized and the consideration paid (including non-cash assets surrendered and the new financial liabilities assumed) shall be included in current profit or loss.

Where the Company redeems part of its financial liabilities, it shall, on the redemption date, allocate the entire book value of whole financial liabilities according to the comparative fair value of the part that continues to be recognized and the derecognized part. The difference between the book value allocated to the derecognized part and the considerations paid (including non-cash assets surrendered and the new financial liabilities assumed) shall be included in the current profit or loss.

5 Determination method for the fair value of financial assets and financial liabilities

Where there is an active market for any financial instrument, the fair value of such financial instrument shall be determined at the price quoted in the active market. The fair value of a financial instrument, for which there is no active market, is determined by using valuation techniques. At the time of valuation, the Company shall adopt the valuation technique that is applicable to the current circumstance and is supported by sufficient available data and other information to select the input values consistent with the assets or liabilities characteristics that are taken into account by market participants in transactions of relevant assets and liabilities, and shall give priority in use of observable input values. And the unobservable input values may be used only when the observable input values are unable or unpractical to be obtained.

6 Test method and accounting treatment for impairment of financial assets (excluding receivables)

Except for the financial assets measured at fair value through the current profit or loss, the Company should check the book value of financial assets on the balance sheet date. If there is objective evidence that any financial asset has been impaired, the provision for impairment will be made.

(1) Provision for impairment of available-for-sale financial assets:

If the fair value of available-for-sale financial assets has significantly declined at the end of the period, or it is expected that the trend of decrease in value is non-temporary after considering of various relevant factors, the impairment shall be recognized, and accumulated losses from decreases in fair value originally and directly included in owners' equity shall be all transferred out and recognized as impairment loss.

For available-for-sale debt instruments whose impairment losses have been recognized, if their fair values rise in the subsequent accounting period and such rise is objectively related to the matters occurring after the recognition of such impairment losses, the previously recognized impairment losses may be reversed and included in the current profit or loss.

Impairment losses from the investment in available-for-sale equity instruments do not be reversed through the profit or loss.

(2) Impairment provision for held-to-maturity investments:

Measurement of impairment loss on held-to-maturity investments is treated in accordance with the measurement method of impairment loss on receivables.

The objective evidences showing that financial assets have impaired include the circumstances can be observed:

① The issuer or debtor suffers severe financial difficulties;

② The debtor breaches the relevant contract, such as default or delay in repayment of interest or principal;

③ The Group gives concessions to the debtor with financial difficulties after considering economic or legal factors;

④ The debtor is likely to close down or go through other financial reorganization;

⑤ The issuer suffers major financial difficulties, resulting that financial assets are difficult to be continuously traded in an active market;

⑥ It is unable to identify whether cash flows of an asset in a portfolio of financial assets have reduced, but according to the overall assessment on the financial assets based on public data, it is found that expected future cash flows of such portfolio of financial assets have reduced and can be measured in the period following the date of initial recognition, including:

- The debtor's ability to pay such financial assets has gradually deteriorated;

- The economy of the country or region where the debtor is located has encountered any situation which may cause the failure in payment for such financial assets;

⑦ There are significant adverse changes in technology, market, economy or legal environment and others in the debtor's business placement, resulting that the investor in the equity instrument may not be able to recover the investment cost;

⑧ The fair value of the equity instrument investment has a significant or non-temporary decline, that is, on the balance sheet date, the fair value of any equity instrument investment is less than 50% (inclusive) of its initial investment cost, or less than its initial investment cost for more than 12 consecutive months (inclusive).
The aforementioned "less than its initial investment cost for more than 12 consecutive months (inclusive)" means that the monthly average of the fair value of equity instrument investment is less than that of its initial investment cost for 12 consecutive months.

⑨ Other objective evidence indicating the impairment of financial assets.
Where there is no reasonable expectation that the Company is able to recover the financial assets, it shall directly write off the impairment provision and writes-down the book value of financial assets. The Company will write off the whole or part of the financial assets based on the actual situation. The Company will write off the financial assets in part or in whole based on the actual situation.

7 Offset of financial assets and financial liabilities

When the Company has a legal right to offset the recognized financial assets and financial liabilities, and the legal right is a current executable one, meanwhile the Group plans to settle with net amount or to transfer the financial assets and the financial liabilities into cash at the same time, the financial assets and financial liabilities are listed in the balance sheet by the amount after offsetting.

8 Difference between financial liabilities and equity instruments and their relevant disposal methods

Equity instruments refer to a contract that could prove the ownership of remaining equity of a certain enterprise's assets after deduction of all liabilities. If the Company is unable to unconditionally avoid fulfilling a contractual obligation through the payment in cash or other financial assets, such contractual obligation shall be deemed as financial liabilities.

Where a financial instrument is a financial liability, then the relevant interest, dividends, gains, losses, as well as the gains or losses arising from redemption or refinancing, shall be included in the current profit or loss.

Where a financial instrument is an equity instrument, in case of any relevant issuance, repurchase, sale or cancellation, the issuer shall treat the said activities as changes in equity, changes in the fair value of the equity instruments shall not be recognized, and the distribution by the issuer to the holder of such equity instruments should be taken as profit distribution.

Companies that have implemented the New Standards for Financial Instruments

The Company's subsidiaries China Power International Development Limited, SPIC Pacific Energy Pty Ltd and SPIC Brazil Energia Participaçoes S.A. have implemented the New Standards for Financial Instruments as of January 1, 2018 upon the resolution of the board of directors, while the Company's subsidiaries Shanghai Electric Power Co., Ltd., State Power Investment Corporation Yuanda Environmental Protection Co., Ltd., Jilin Electric Power Co., Ltd., Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia, SPIC Dongfang New Energy Corporation, SPIC Xianrong Futures Co., Ltd., and SPIC Guizhou Jinyuan Weining Energy Co., Ltd. have implemented the New Standards for Financial Instruments as of January 1, 2019 upon resolution of the board of directors. The accounting policies implemented by the above companies are as follows:

1 Classification of financial instruments

According to the business model of financial assets and contractual cash flow characteristics of the same, which are subject to the Management of the Company, financial assets are classified at the initial recognition as: financial assets measured at the amortized cost, financial assets (debt instrument) measured at fair value through the other comprehensive income and financial assets measured at fair value through the current profit or loss.

Financial assets of which business model is adopted for the purpose of gathering the contractual cash flow that is only used for paying the principal and the interest accrued based on the amount of unpaid principal shall be classified as the financial assets measured at the amortized cost; financial assets of which business model is adopted for the purpose of both gathering the contractual cash flow and selling such financial assets, moreover, the contractual cash flow is only used for paying the principal and the interest accrued based on the amount of unpaid principal, shall be classified as the financial assets (debt instruments) measured at fair value through the other comprehensive income; besides, other financial assets shall be classified as the financial assets measured at fair value through the current profit or loss.

At the initial recognition, the Company makes decisions on whether the non-trading equity instrument investments can be designated as financial assets (equity instruments) measured at fair value through the other comprehensive income.

At the initial recognition, in order to eliminate or significantly reduce accounting mismatches, the Company may designate financial assets as the financial assets measured at fair value through the current profit or loss.

At the initial recognition, financial liabilities are classified as: financial liabilities measured at fair value through the current profit or loss and financial liabilities measured at the amortized cost.

2 Recognition basis and measurement method of financial instruments

(1) Financial assets measured at amortized cost

Financial assets measured at amortized cost include notes receivable and accounts receivable, other receivables, long-term receivables, and creditors' investment, etc., of which initial measurement is made at fair value, and relevant transaction costs are included in the initially recognized amount; exclude accounts receivable with significant financing component and accounts receivable with the financing component not exceeding one year and not considered by the Company, of which initial measurement is made at the contract transaction price.

During the holding period, the interest calculated by the effective interest method is included in the current profit or loss.

At recovery or disposal, the difference between the purchase price obtained and the book value of such financial assets is included in the current profit or loss.

(2) Financial assets (debt instruments) measured at fair value through the other comprehensive income

Financial assets (debt instruments) measured at fair value through the other comprehensive income include receivables financing and other creditors' investment, of which initial measurement is made at fair value, and relevant transaction costs are included in the initially recognized amount. The subsequent measurement of such financial assets is made at fair value. Changes in fair value are included in other comprehensive income except for the interest calculated by the effective interest method, impairment losses or gains, and exchange gains or losses.

At derecognition, the accumulated gains or losses previously included in other comprehensive income are transferred from the other comprehensive income to the current profit or loss.

(3) Financial assets (equity instruments) measured at fair value through the other comprehensive income

Financial assets (equity instruments) measured at fair value through the other comprehensive income, including the investment in other equity instruments, are initially measured at fair value, and relevant transaction costs are included in the initially recognized amount. The subsequent measurement of such financial assets is made at fair value, and the changes in fair value are included in other comprehensive income. The dividends obtained are included in the current profit or loss.

At derecognition, the accumulated gains or losses previously included in other comprehensive income are transferred from the other comprehensive income to the retained earnings.

(4) Financial assets measured at fair value through the current profit or loss
Financial assets measured at fair value through the current profit or loss include trading financial assets, derivative financial assets and other non-current financial assets, of which initial measurement is made at fair value, and relevant transaction costs are included in the current profit or loss. The subsequent measurement of such financial assets is made at fair value, and changes in fair value are included in the current profit or loss.

(5) Financial liabilities measured at fair value through the current profit or loss
Financial liabilities measured at fair value through the current profit or loss include trading financial liabilities and derivative financial liabilities, of which initial measurement is made at fair value, and relevant transaction costs are included in the current profit or loss. The subsequent measurement of such financial liabilities is made at fair value, and changes in fair value are included in the current profit or loss.

At derecognition, the difference between the book value and the consideration paid of such financial liabilities is included in the current profit or loss.

(6) Financial liabilities measured at amortized cost
Financial liabilities measured at the amortized cost include short-term borrowings, notes payable and accounts payable, other payables, long-term borrowings, bonds payable and long-term payables, of which initial measurement is made at fair value, and related transaction costs are included in the initially recognized amount.

During the holding period, the interest calculated by the effective interest method is included in the current profit or loss.

At derecognition, the difference between the consideration paid and the book value of such financial liabilities is included in the current profit or loss.

3 Recognition basis and measurement methods of the transfer of financial assets

When the transfer of financial assets occurs, if nearly all of the risks and rewards related to the ownership of the financial assets have been transferred to the transferee, the Company derecognizes the financial assets; if nearly all of the risks and rewards related to the ownership of the financial assets are retained, the Company will not derecognize the financial assets.

In determining whether the transfer of a financial asset meets the above derecognition criteria of financial assets, the principle of substance over form will be adopted. The Company divides the transfer of financial assets into overall transfer and partial transfer. Where the entire transfer of financial assets meets the derecognition conditions, the difference of the following two amounts are included in the current profit or loss:

(1) The book value of the transferred financial asset;

(2) The sum of consideration received from the transfer, and the accumulated change amount of fair value originally recorded in owners' equity (the financial assets involved in the transfer are financial assets (debt instruments) measured at fair value through the other comprehensive income).

Where the partial transfer of a financial asset meets the derecognition criteria, the entire book value of the financial asset transferred shall be allocated between the derecognized part and the recognized part based on the relative fair value, and the difference between the following two amounts shall be included in the current profit or loss:

(1) The book value of derecognized part;

(2) The sum of the consideration for the derecognized part and the amount corresponding to the de-recognition part in the accumulated change amount of fair value originally and directly included in owners' equity (where the financial assets transferred are the financial assets (debt instruments) measured at fair value through the other comprehensive income).

Where the transfer of financial assets does not meet the derecognition criteria, the financial assets shall continue to be recognized, and the consideration received shall be recognized as a financial liability.

4 Derecognition criteria of financial liabilities

Where the present obligations of financial liabilities have been discharged in whole or in part, the financial liability is derecognized or any part thereof shall be derecognized; if the Company signs an agreement with creditors to replace the existing financial liabilities by undertaking new financial liabilities, and the new financial liabilities are substantially different from the existing ones in terms of contract terms, the existing financial liabilities shall be derecognized, and at the same time, the new financial liability shall be recognized.

Where substantive changes are made to the contract terms of existing financial liabilities in whole or in part, the existing financial liabilities shall be derecognized in whole or in part, and the financial liabilities of which terms have been modified shall be recognized as the new financial liabilities.

Where financial liabilities are derecognized is whole or in part, the difference between the book value of the financial liabilities derecognized and the consideration paid (including non-cash assets surrendered and the new financial liabilities assumed) shall be included in the current profit or loss.

Where the Company redeems part of its financial liabilities, it shall, on the redemption date, allocate the entire book value of whole financial liabilities according to the comparative fair value of the part that continues to be recognized and the derecognized part. The difference between the book value allocated to the derecognized part and the considerations paid (including non-cash assets surrendered and the new financial liabilities assumed) shall be included in the current profit or loss.

5 Recognition methods of the fair value of financial assets and financial liabilities

As for the financial instruments for which there is an active market, the quoted prices in the active market shall be used to determine the fair values thereof. The fair value of a financial instrument, for which there is no active market, is determined by using valuation techniques. At the time of valuation, the Company shall adopt the valuation technique that is applicable to the current circumstance and is supported by sufficient available data and other information to select the input values consistent with the assets or liabilities characteristics that are taken into account by market participants in transactions of relevant assets and liabilities, and shall give priority in use of observable input values. And the unobservable input values may be used only when the observable input values are unable or unpractical to be obtained.

6 Test method and accounting treatment of depreciation of financial assets

The Company considers all reasonable and evidence-based information, including forward-looking information, and estimates the expected credit loss of financial assets measured at the amortized cost and financial assets (debt instruments) measured at fair value through the other comprehensive income individually or in portfolio. The measurement of expected credit loss depends on whether there is obvious increase in credit risk following the initial recognition.

(1) General mode for expected credit loss

If there is obvious increase in credit risk following the initial recognition of such financial instrument, the Company will measure the loss provision at the amount which is equivalent to the amount of the expected credit loss over the entire duration of such financial instrument; if there is no obvious increase in credit risk following the initial recognition of such financial instrument, the Company will measure the loss provision at the amount which is equivalent to the amount of the expected credit loss within 12 months in the future of such financial instrument. Amount increased or reversed of loss provision arising therefrom will be included in the current profit or loss as impairment loss or gain.

Generally, once the overdue period is more than 30 days, the Company may consider that there is obvious increase in credit risk of such financial instrument, unless there is unambiguous evidence that there is no obvious increase in credit risk of such financial instrument following the initial recognition.

Specifically, the Company divides the process of credit impairment of financial instruments that have not been credit impaired at the time of purchase or origin into three phases. There are different accounting treatment methods for the impairment of financial instruments at different phases:

Phase I: in which credit risk has not increased significantly since initial recognition

For a financial instrument in this phase, the enterprise should measure the provision for loss according to the expected credit losses in the next 12 months, and calculate the interest income based on its book balance (that is, without deducting the provision for impairment) and the actual interest rate (if case of a financial asset, the same below).

Phase II: in which credit risk has increased significantly since initial recognition but without credit impairment

For a financial instrument in this phase, the enterprise should measure the provision for loss according to the expected credit losses of the instrument over its entire life, and calculate the interest income based on its book balance and the actual interest rate.

Phase III: in which credit impairment occurs after initial recognition

For a financial instrument in this phase, the enterprise should measure the provision for loss based on the expected credit losses of the instrument over its entire life, but the calculation of interest income is different from that of the financial assets in the previous two phases. For a financial asset that has suffered credit impairment, the enterprise should calculate interest income based on its amortized cost (book balance minus the provision for impairment, that is, the book value) and the actual interest rate.

For a financial asset that has suffered credit impairment at the time of purchase or origin, the enterprise should only recognize changes in expected credit losses throughout the lifetime after initial recognition as provision for loss, and calculate the interest income based on its amortized cost and credit-adjusted actual interest rate.

(2) For a financial instrument with lower credit risk on the balance sheet date, the Company chooses not to compare such credit risk with that at its initial recognition, but directly makes the assumption that the credit risk of the instrument has not increased significantly since initial recognition.
If the enterprise finds a financial instrument with low default risk and a borrower with strong ability to fulfill its obligation of payment for contractual cash flows in the short term, and even if there are adverse changes in the economic situation and operating environment in a longer period of time, it will not necessarily influence the borrower's such ability, then the financial instrument may be considered to have lower credit risk.

(3) Receivables and lease receivables
For receivables specified in *the Accounting Standards for Business Enterprises No. 14 - Revenue* that do not contain significant financing components (including the situation that the financing components in contracts with a term of not more than one year are not considered under the Standards), the Company will adopt the simplified model of expected credit losses and always measure their provision for loss according to the expected credit loss during the entire lifetime.

The Company makes accounting policy choices for receivables that contain significant financing components and lease receivables regulated by *the Accounting Standards for Business Enterprises No. 21 - Leases*, and chooses to adopt a simplified model of expected credit losses, that is, to measure their provision for loss according to the amount equivalent to the expected credit loss throughout the lifetime.

Receivables mainly include notes receivable, accounts receivable, receivables financing, lease receivables, long-term receivables formed by sales of commodities or rendering of labor services, other receivables, etc. Methods for provision for bad debts:

1) Recognition criteria and provision method for provision for losses made on single basis.
If there is objective evidence that any receivable has had credit impairment, the Company will make the provision for impairment for such receivable individually. Common objective evidence generally includes the debtor’s major financial difficulties; receivables with disputes with the other party or involving litigation or arbitration; breach of contract by the debtor, such as default or overdue payment of interest or principal; the debtor is likely to go bankrupt or undergoes other financial reorganizations; the debtor’s financial difficulties that led to the disappearance of the active market for other financial assets issued by the debtor.

For financial assets adopting individual provision for expected credit loss, it is necessary to consider the collection amount of future cash flows in different situations and the probability of each situation, calculate the probability weighted average, and then obtain the expected credit loss rate.

2) For accounts receivable subject to the provision for bad debts by portfolio, in addition to those with individual provision for losses, the Company, based on its own actual situations, accrue the provision for impairment of receivables according to similar credit risk characteristics on portfolio basis. The criteria for grouping may include the geographical area of the customer, customer rating, collateral, customer type, overdue days, and aging, etc. For receivables that are divided into portfolios, the historical recovery situation corresponding to the portfolio should be fully considered, in combination with the current debtor's operating conditions and macro environment, and various forward-looking factors should be reasonably predicted, and the expected credit losses shall be calculated through the portfolio's default risk exposure and the expected credit loss rate during the whole duration.

① Notes receivable

Based on the credit rating of the accepting bank or the acceptor, by taking into account the future macroeconomic conditions, the provision for losses of notes receivable is made for different portfolios:

Portfolio type	Risk characteristics	Methods for provision for bad debts
Low-risk bank acceptance bills	Extremely low risk	No provision for loss shall be made
Normal bank acceptance bills	Low risk	Expected credit loss method
Low-risk commercial acceptance bills	Extremely low risk	No provision for loss shall be made
Normal commercial acceptance bills	Low risk	Expected credit loss method

Low-risk bank acceptance bill portfolio refers to the risk portfolio of large banks with higher credit rating. The possibility that this type of note cannot be cashed at maturity is very small, and no loss provision is made.

A portfolio of normal bank acceptance bills refers to a portfolio of the bank acceptance bills other than the portfolios subject to individual provision for loss and the portfolios of low-risk bank acceptance bills. Each entity shall determine the redemption risk of the notes held based on the historical redemption status of the notes, and make the provision for the loss of portfolio in combination with possible future events.

The low-risk commercial acceptance bill portfolio refers to the risk portfolio in which the acceptor is a large central enterprise. The drawer of this portfolio has a strong ability to resist risks and good credit, and the possibility of default is small. No provision for loss shall be made for such portfolio.

A portfolio of normal commercial acceptance bills refers to a portfolio of the commercial acceptance bills other than the portfolios subject to individual provision and the portfolios of low-risk commercial acceptance bills. When dividing this type of portfolio, it is necessary to take into account the actual situation of the acceptor, fully consider historical cash and various forward-looking factors, and if necessary, it can be subdivided into several different portfolios according to industry, region, etc., to ensure adequate provision for loss.

② Accounts receivable and long-term receivables (formed by sales of goods or rendering of services)

According to the similarity and relevance of credit risk characteristics, the corresponding accounts receivable are grouped, and the method of the provision for bad debts made by the portfolio:

Portfolio type	Risk characteristics	Methods for provision for bad debts
Aging analysis portfolio	Moderate risk	Expected credit loss method
Risk-free portfolio	Extremely low risk	No provision for loss shall be made
Other portfolios		

The portfolio of aging analysis refers to the portfolio of accounts receivable that is formed through external sales of goods, rendering of labor services, and capital transactions, and does not belong to the above portfolios. The credit risk of the portfolio is moderate. It is necessary to subdivide the portfolio into several different portfolios according to the debtor's industry, business nature, business type, etc., and fully consider the historical recoverability and forward-looking factors of the receivables, determine an appropriate loss rate, and make the provision for estimated credit losses.

The risk-less portfolio refers to the portfolio of accounts receivable with extremely low credit risk of the debtor, such as the portfolio of electricity bills receivable from the State Grid, renewable energy subsidies, and related party transactions. The credit risk of such portfolio is extremely low, and no provision for loss shall be made.

③ Contract assets

The provision for losses of contract assets shall be implemented with reference to accounts receivable while accruing in portfolio.

④ Lease receivables

The lease receivables formed by financial leases are generally large in amount and the actual situation of the debtors are different. In principle, the portfolio method should not be used to accrue loss reserves.

At the time of the provision for loss of lease receivables, it is necessary to, based on the relevant information obtained of the lessee of each lease item, consider the situation of the industry to which the lessee belongs, and reasonably expect the cash flow that can be obtained. The expected credit losses shall be predicted and calculated on such ground.

⑤ Other receivables

The simplified method is not applicable to the provision for bad debts of other receivables, and the general method of the expected credit loss model shall be used to make the provision for the

expected credit loss in accordance with the three-stage financial asset impairment of this method.
At the time of assessing the credit risk of other receivables, for certain other receivables, if any company cannot obtain sufficient evidence of a significant increase in credit risk at a reasonable cost at the level of individual instruments, it is required to assess credit risk on a portfolio basis. When classifying portfolios of other receivables, it is necessary to generally consider factors such as the nature of the payment, the debtor's credit risk level, the situation of collateral, the due date or overdue situation, and whether there is any associated relationship.

When determining the portfolios of other receivables, the Company can divide them into aging analysis portfolio, risk-less portfolio and other portfolio by referring to accounts receivable.

Portfolio type	Risk characteristics	Methods for provision for bad debts
Aging analysis portfolio	Moderate risk	Expected credit loss method
Risk-free portfolio	Extremely low risk	No provision for loss shall be made
Other portfolios		

Among them, the aging analysis portfolio is based on aging and uses the expected credit loss method to withdraw loss reserves; risk-less portfolios are generally related party transactions, margins and deposits with very low risk, etc., no provision for losses will be made for such portfolios generally.

7 Offset of financial assets and financial liabilities

When the Company has a legal right to offset the credit and debt and the legal right is executable currently, meanwhile the parties to the transaction plan to settle with net amount or to settle assets and liabilities at the same time, the financial assets and financial liabilities shall be presented in the balance sheet by the net amount after offsetting.

8 Difference between financial liabilities and equity instruments and their relevant disposal methods

Equity instrument refers to a contract which can prove the remaining equity in assets of an enterprise after deducting all liabilities; if a company cannot unconditionally avoid to fulfill any contractual obligation via the payment in cash or other financial assets, such contractual obligation is a financial liability.

Where a financial instrument is a financial liability, then the relevant interest, dividends, gains, losses, as well as the gains or losses arising from redemption or refinancing, shall be included in the current profit or loss.

Where a financial instrument is an equity instrument, in case of any relevant issuance, repurchase, sale or cancellation, the issuer shall treat the said activities as changes in equity, changes in the fair value of the equity instruments shall not be recognized, and the distribution by the issuer to the holder of such equity instruments should be taken as profit distribution.

4.10 Hedging instruments

Companies that have not yet implemented new standards for financial instruments

4.10.1 Classification of hedging

(1) A "fair value hedging" refers to a hedging of the risk to changes in the fair value of a recognized asset or liability or a previously unrecognized firm commitment (excluding foreign exchange risks).

(2) The term "cash flow hedging" refers to a hedging of the risk to changes in cash flow. Such changes in cash flow are attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction or a foreign exchange risk contained in an unrecognized firm commitment.

(3) A "hedging of net investment in an overseas operation" refers to a hedging of the foreign exchange risk arising from net investment in an overseas operation. Net investment in an overseas operation refer to the equity proportion of an enterprise in net assets in an overseas operation.

4.10.2 Designation of hedging relationship and identification of hedging effectiveness

At the commencement of the hedge, the enterprise formally designates the hedging relationship and prepares a formal written document about the hedging relationship, risk management objectives and the strategies of hedging. Such document specifies the nature and quantity of the hedging instrument, nature of the hedged projects, nature of the hedged risks, type of hedging and effective evaluation methods on hedging instrument by the Company. The term "hedging effectiveness" refers to the extent that the changes in the fair value or cash flow of a hedging instrument offsets the changes resulting from the hedging risks in the fair value or cash flow of a hedged item.

The Company continues to evaluate the effectiveness of hedges, and ensures that whether the hedge meets the requirement for effectiveness by use of the hedge accounting during the accounting period designated as to the hedging relationship. If it doesn't meet the requirement, the hedging relationship will be terminated.

The commodity futures hedging business should meet the following requirements on the effectiveness of hedging:

(1) There is an economic relationship between the hedged item and the hedging instrument.

(2) For the value change caused by the economic relationship between the hedged item and the hedging instrument, the impact of credit risk is not dominant.

(3) It is required to adopt the proper hedging rate, which will not form an imbalance of relative weight between the hedging item and the hedging instrument, resulting in an accounting result that is inconsistent with the hedging accounting objective. If the hedging rate is no longer proper, but the hedge risk management objective does not change, the number of hedged items or hedging instruments should be adjusted so as to make the hedging rate meet the requirements for effectiveness again.

Others hedging business should meet the following requirements on the effectiveness of hedging:

(1) At the commencement of hedging and in subsequent periods, the hedge is expected to be highly effective in offsetting the changes in the fair value or cash flow caused by the hedged risk during the designated periods;

(2) The hedging's actual offset results are within a range of 80% to 125%.

4.10.3 Accounting treatment methods of hedging

(1) Fair value hedges

Changes in fair value of the hedging derivative shall be included in the current profit or loss. Changes in fair value of the hedged item attributable to hedged risk shall be included in the current profit or loss, and book value of the hedged item shall be adjusted simultaneously.

For fair value hedges related to financial instruments measured at the amortized cost, an adjustment made to the book value of the hedged item should be amortized during the remaining period from the adjustment date to the maturity date and should be recorded in the current profit or loss. Amortization pursuant to effective interest method can be conducted hereupon after the adjustment of book value, but shall not be later than the date, when the hedged item terminates adjustment on changes in fair value due to hedging risks.

If the hedged item is derecognized, the unamortized fair value should be recognized as the current profit or loss.

If a hedged item is an unrecognized firm commitment, the accumulative amount of the changes in the fair value of the firm commitment incurred by the hedged risk should be recognized as an asset or liability and the relevant profit or loss shall be recorded into the current profit or loss. Changes in the fair value of the hedging instrument are also recognized in the current profit or loss.

(2) Cash flow hedges

The portion of profit or loss on the hedging instrument attributable to the effective hedge shall be directly recognized as other comprehensive income, which attributable to the ineffective hedge shall be recorded in the profit or loss of the current period.

Where the hedged transaction affects current profit or loss, amount recognized in other comprehensive income shall be transferred in the current profit or loss, if recognition of hedged financial revenue or financial expenses or anticipated sales occurs. If the hedged item is the cost of a non-financial asset or non-financial liability, then the amount previously recognized in other comprehensive income should be transferred into the initially recognized amount of the non-financial asset or the non-financial liability (or then the amount previously recognized in other comprehensive income should be transferred in the same period when the non-financial asset or the non-financial liability affects profit or loss and should be included in the current profit or loss).

If the forecast transaction or definite undertaking is not expected to occur, the gains or losses of the hedging instrument included in shareholders' equity will be transferred out and included in the current profit or loss. If the hedging instrument has matured or been sold, or the contract is terminated or has been exercised (or not replaced or renewed), or the Company revokes the designation of the hedge relationship, amounts previously recognized in other comprehensive income shall not be transferred out until the forecast transaction or definite undertaking affects the current profit or loss.

(3) Hedges of net investment in an overseas operation
For hedges of net investment in an overseas operation including the hedges of monetary items as a part of net investment, the disposal of such hedges is similar to that of cash flow hedges. The portion of profit or loss on the hedging instrument attributable to the effective hedge shall be recognized as other comprehensive income, which attributable to the ineffective hedge shall be recorded in the current profit or loss. When overseas operation is disposed, any accumulated profit or loss recognized in shareholders' equity shall be transferred out and included in the current profit or loss.

Companies that have implemented new standards for financial instruments
The Company's subsidiary, China Power International Development Limited, implemented the new financial instrument standards as of January 1, 2018 upon a resolution of the board of directors; the Company's subsidiaries, Shanghai Electric Power Co., Ltd., State Power Investment Corporation Yuanda Environmental Protection Co., Ltd., Jilin Electric Power Co., Ltd., Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia, SPIC Dongfang New Energy Corporation, SPIC Xianrong Futures Co., Ltd. and SPIC Guizhou Jinyuan Weining Energy Co., Ltd. implemented the new financial instrument standards from January 1, 2019 through a resolution of the board of directors, and the accounting policies implemented by the above companies are as follows:

4.10.4 Classification of hedging

(1) A "fair value hedging" refers to a hedging of the risk to changes in the fair value of a recognized asset or liability or a previously unrecognized firm commitment (excluding foreign exchange risks).

(2) The term "cash flow hedging" refers to a hedging of the risk to changes in cash flow. Such changes in cash flow are attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction or a foreign exchange risk contained in an unrecognized firm commitment.

(3) A "hedging of net investment in an overseas operation" refers to a hedging of the foreign exchange risk arising from net investment in an overseas operation. Net investment in an overseas operation refer to the equity proportion of an enterprise in net assets in an overseas operation.

4.10.5 Designation of hedging relationship and identification of hedging effectiveness

At the commencement of the hedge, the enterprise formally designates the hedging relationship and prepares a formal written document about the hedging relationship, risk management objectives and the strategies of hedging. Such document specifies the nature and quantity of the hedging instrument, nature of the hedged projects, nature of the hedged risks, type of hedging and effective evaluation methods on hedging instrument by the Company. The term "hedging effectiveness" refers to the extent that the changes in the fair value or cash flow of a hedging instrument offsets the changes resulting from the hedging risks in the fair value or cash flow of a hedged item.

The Company continues to evaluate the effectiveness of hedges, and ensures that whether the hedge meets the requirement for effectiveness by use of the hedge accounting during the accounting period designated as to the hedging relationship. If it doesn't meet the requirement, the hedging relationship will be terminated.

The use of hedge accounting should meet the following requirements on the effectiveness of hedging:

(1) There is an economic relationship between the hedged item and the hedging instrument.

(2) For the value change caused by the economic relationship between the hedged item and the hedging instrument, the impact of credit risk is not dominant.

(3) It is required to adopt the proper hedging rate, which will not form an imbalance of relative weight between the hedging item and the hedging instrument, resulting in an accounting result that is inconsistent with the hedging accounting objective. If the hedging rate is no longer proper, but the hedge risk management objective does not change, the number of hedged items or hedging instruments should be adjusted so as to make the hedging rate meet the requirements for effectiveness again.

4.10.6 Accounting treatment methods of hedging

(1) Fair value hedges

Changes in fair value of the hedging derivative shall be included in the current profit or loss. Changes in fair value of the hedged item attributable to hedged risk shall be included in the current profit or loss, and book value of the hedged item shall be adjusted simultaneously.

For fair value hedges related to financial instruments measured at the amortized cost, an adjustment made to the book value of the hedged item should be amortized during the remaining period from the adjustment date to the maturity date and should be recorded in the current profit or loss. Amortization pursuant to effective interest method can be conducted hereupon after the adjustment of book value, but shall not be later than the date, when the hedged item terminates adjustment on changes in fair value due to hedging risks.

If the hedged item is derecognized, the unamortized fair value should be recognized as the current profit or loss.

If a hedged item is an unrecognized firm commitment, the accumulative amount of the changes in the fair value of the firm commitment incurred by the hedged risk should be recognized as an asset or liability and the relevant profit or loss shall be recorded into the current profit or loss. Changes in the fair value of the hedging instrument are also recognized in the current profit or loss.

(2) Cash flow hedges

The portion of profit or loss on the hedging instrument attributable to the effective hedge shall be directly recognized as other comprehensive income, which attributable to the ineffective hedge shall be recorded in the profit or loss of the current period.

Where the hedged transaction affects current profit or loss, amount recognized in other comprehensive income shall be transferred in the current profit or loss, if recognition of hedged financial revenue or financial expenses or anticipated sales occurs. If the hedged item is the cost of a non-financial asset or non-financial liability, then the amount previously recognized in other comprehensive income should be transferred into the initially recognized amount of the non-financial asset or the non-financial liability (or then the amount previously recognized in other comprehensive income should be transferred in the same period when the non-financial asset or the non-financial liability affects profit or loss and should be included in the current profit or loss).

If the forecast transaction or definite undertaking is not expected to occur, the gains or losses of the hedging instrument included in shareholders' equity will be transferred out and included in the current profit or loss. If the hedging instrument has matured or been sold, or the contract is terminated or has been exercised (or not replaced or renewed), or the Company revokes the designation of the hedge relationship, amounts previously recognized in other comprehensive income shall not be transferred out until the forecast transaction or definite undertaking affects the current profit or loss.

(3) Hedges of net investment in an overseas operation
For hedges of net investment in an overseas operation including the hedges of monetary items as a part of net investment, the disposal of such hedges is similar to that of cash flow hedges. The portion of profit or loss on the hedging instrument attributable to the effective hedge shall be recognized as other comprehensive income, which attributable to the ineffective hedge shall be recorded in the current profit or loss. When overseas operation is disposed, any accumulated profit or loss recognized in shareholders' equity shall be transferred out and included in the current profit or loss.

4.11 Receivables

Receivables include accounts receivable and other receivables, etc. The accounts receivable generated from external sales of goods or rendering of services by the Company are initially recognized at the fair value of the consideration which shall be received by the purchaser under the contract or agreement. Receivables are presented, by using the effective interest method, at the net amount of the amortized costs less the provision for bad debts.

Companies that have not yet implemented new standards for financial instruments

4.11.1 For receivables with individual significant amount, separate impairment test shall be made

The Company regards receivables with an ending balance of more than RMB 10 million (inclusive) or receivables with a single amount of more than 10% (inclusive) of the balance of receivables as receivables with a significant single amount.

The Company would carry out separate impairment test on receivables with significant single amount; the financial assets not impaired in separate test will be included in financial assets portfolio with similar credit risk characteristics for impairment test. Receivables with impairment loss recognized upon the separate test should not be included in the receivables portfolio with similar credit risk characteristics for an impairment test.

4.11.2 Receivables with provision for bad debts accrued on a portfolio basis

Basis for determining the portfolio	
Aging analysis portfolio	The Company shall determine the proportion of provision for bad debts based on the actual loss ratio of the same or similar receivables portfolio, or the same or similar aging-based receivables portfolio with similar credit risk characteristics in the previous years in consideration with the current situation
Risk-free portfolio	It may be reasonably predicted that future cash flow will not be lower than book value
Method of the provision for bad debts made by portfolio (aging analysis method, balance percentage method and other methods)	
Aging analysis portfolio	Aging analysis method

Basis for determining the portfolio	
Risk-free portfolio	No provision for bad debts shall be made

In portfolio, the provision for bad debts accrued by the aging analysis method:

(1) Accounts receivable from power generation enterprises

Aging	Proportion of provision (%)
Within 1 year	0.00
1 - 2 years (including 2 years)	10.00
2 - 3 years (including 3 years)	20.00
3 - 5 years (including 5 years)	50.00
Over 5 years	100.00

The primary businesses of various fuel companies, operating companies, engineering companies, and electric power complete sets companies of the Group Company are closely related to the power generation companies of the Group Company, and their proportion of provision for bad debts of accounts receivable and notes receivable is the same as that of power generation companies.

(2) Accounts receivable from coal enterprises

Aging	Proportion of provision (%)
Within 1 year	2.00
1 - 2 years (including 2 years)	4.00
2 - 3 years (including 3 years)	8.00
Over 3 years	100.00

(3) Other receivables

Aging	Proportion of provision (%)
Within 1 year	10.00
1 - 2 years (including 2 years)	30.00
2 - 3 years (including 3 years)	50.00
3 - 5 years (including 5 years)	80.00
Over 5 years	100.00

Except for power generation and related enterprises and coal enterprises, the proportion of provision for accounts receivable of other enterprises shall be the same as that for other receivables. No provision for bad debts will be made for futures deposits included in other receivables.

(4) No provision for bad debts will be made for notes receivable that are not overdue. Overdue notes receivable should be transferred to accounts receivable, with aging being calculated accumulatively, and the provision for bad debts should be made according to the aforementioned provisions.

(5) The proportion of provision for bad debts for overdue advances to suppliers based on overdue aging is as follows:

Aging	Proportion of provision (%)
Overdue within 1 year (including 1 year)	20.00
Overdue 1 to 2 years (including 2 years)	50.00
Overdue 2 to 3 years (including 3 years)	80.00
Overdue more than 3 years	100.00

4.11.3 Receivables with individually insignificant amount but subject to individual provision for bad debts

Reasons for individual provision for bad debts

The Company shall conduct separate impairment tests for receivables that are individually insignificant but with the following characteristics. Where there is objective evidence that an impairment has occurred, impairment losses should be recognized and provision for bad debts should be made based on the difference between the present value of future cash flows lower than the book value. Such receivables include receivables from related parties, receivables which are in dispute over the opposite party or are involved in relevant litigation or arbitration, and receivables where there is obvious indication showing that the debtor probably cannot fulfill the repayment obligation.

Methods for provision for bad debts

When the Company transfers accounts receivable without right of recourse to financial institutions, the difference between the trading amount net of the book values of the written accounts receivable and relevant taxes and surcharges shall be included in the current profit or loss.

4.11.4 Recognition criteria for losses on bad debt of receivables

Where there is any of the following circumstance, the receivables are recognized as bad debts according to stipulated procedures to write off the provision for bad debts.

I Where the creditor is declared bankruptcy or repealed by laws and the Company has obtained the files testifying its announcement of bankruptcy, cancellation of registration in industry and commerce departments or revocation of license or the documents issued by the government departments to order its close and other relevant information, the losses on bad debts shall be recognized when the accounts are still cannot be recovered after deducting the part of creditor's property used for liquidation;

II Where the debtor is died or the declared missing or dead by laws, leaving insufficient property or legacy for liquidation and no successor to pay off, the uncollectible receivables arising therefrom shall be recognized as losses on bad debts;

III When the uncollectible receivables are involved in litigation, effective verdict issued by the people's court, defeat determined or ruled by ruling, or the prevailing party with a verdict of an execution cease or due to the court's failure of execution, they shall be recognized as bad debt loss;

IV Where the receivables are overdue for 3 years, registered in enterprise account collection record and ascertained of no involvement in any business within three years, the losses on bad debts shall be recognized after deducting all the accounts due to the debtor and the amount compensated to relevant reliability person(s);

V Accounts receivable which are overdue for 3 years and uncollectible despite the collection conducted pursuant to law as the debtor is in overseas area, or in Hong Kong, Macao, Taiwan, with whom no business transaction is made within 3 years, shall be recognized as bad debt loss after the submissions concerning the collection termination issued by overseas intermediary or the certificate concerning the escape of debtor and certificate proving bankruptcy issued by embassy or consulate of China in foreign countries are acquired; debts are uncollectible after settlement by bankrupt property or heritage in case of the bankruptcy or death of the debtor. If the debts still cannot be recovered with the debtor's properties or heritage after the debtor is bankruptcy or dies, such debts shall be recognized as the losses on bad debts.

VI The debtor has not paid off its matured debts for a long time, and there is sufficient evidence that the account cannot be recovered or the possibility of recovery is very small.

Companies that have implemented new standards for financial instruments
See "Note 4.9 Financial Instruments - Test method and accounting treatment of impairment of financial assets of companies that have implemented the New Standards for Financial Instruments" for details.

4.12 Inventories

4.12.1 Classification of inventories

Inventories of the Company mainly include fuels, raw materials, low-cost consumables, stock commodities, goods in process and engineering construction (unsettled payment of a finished project), etc.

4.12.2 Evaluation methods of acquisition and dispatching inventories, inventory system and amortization of inventories

The Company's inventories are measured at the actual cost when acquired. Raw materials, goods in process, stock commodities, etc. should be measured with weighted average method when being dispatched; low-cost consumables are amortized with one-off amortization method when they are fetched for use; packaging materials for revolving purpose should be included in costs by several times according to expected number of use. The perpetual inventory system is adopted for accounting.

The construction contract is measured at the actual cost, including the direct and indirect expenses incurred during the period from the execution of contract to the completion of contract or relevant to the implementation of contract. Travel expenses and tendering fees from entering into an contract are included in the contract cost when the contract is acquired if they can be distinguished separately and measured reliably and such contract is likely to be entered into; if not, they will be included in the current profit or loss.

4.12.3 Determination criteria and provision method for inventory depreciation reserves

After the comprehensive inventory count at the end of the period, provisions for inventory depreciation reserve are made or adjusted at the lower of their costs or net realizable values. Where the inventory costs are higher than the net realizable values as at the end of the period, the provision for inventory depreciation reserves shall be made and such provisions shall be included in the current profit or loss.

The provisions for inventory depreciation reserve are made on an individual basis at the end of the period, for inventories with large quantities and relatively low unit prices, the provisions for inventory depreciation reserve are made on a category basis. For inventories related to the product portfolios manufactured and sold in the same area, and of which the final usage or purpose is identical or similar thereto, and which is difficult to be separated from other items for measurement purposes, the provisions for inventory depreciation reserve are made on a portfolio basis.

If the previous factor rendering the write-down of the inventory value has been eliminated, the amounts written down will be recovered, and reversed in the amount of provision for depreciation of inventories, and the reversed amounts will be included in the current profit or loss.

4.12.4 Determination method for net realizable values of inventories

The net realizable values of inventories refer to the amounts of the estimated selling prices of inventories minus the estimated costs to completion, estimated selling expenses and relevant taxes and surcharges.

Net realizable values of merchandise inventories held directly for sale, such as finished goods, stock commodities, and available-for-sale materials, are measured at the estimated selling prices less estimated sales expenses and relevant taxes and surcharges in the normal production process. Net realizable values of material inventories which need further processing are measured at the estimated selling prices less the estimated costs of completion, estimated sales expenses and relevant taxes and surcharges in the normal production process. Net realizable values of inventories held for the purpose of fulfillment of sales contracts or service contracts are calculated on the basis of the contract prices; if the quantity of inventories held exceeds that stated in the contract, the net realizable values of the excessive part are calculated on the basis of normal selling prices.

Unless there is clear evidence shows that the abnormalities lies in the market price at the balance sheet date, the net realizable value of the inventory items is determined based on market prices at the balance sheet date.

The net realizable value of inventory items as at the end of the period is determined based on the market price on the balance sheet date.

4.13 Contract assets and contract liabilities

Companies that have implemented the New Standards for Revenues

The Company's subsidiary, China Power International Development Limited, implemented the new standards for revenue as of January 1, 2018 through a resolution of the board of directors; the Company's subsidiaries, Shanghai Electric Power Co., Ltd., State Power Investment Corporation Yuanda Environmental Protection Co., Ltd., Jilin Electric Power Co., Ltd., Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia, SPIC Dongfang New Energy Corporation, SPIC Xianrong Futures Co., Ltd. and SPIC Guizhou Jinyuan Weining Energy Co., Ltd. implemented the new standards for revenue from January 1, 2020 upon a resolution of the board of directors, and the accounting policies implemented by the above companies are as follows:

4.13.1 Recognition method and criteria for contract assets and contract liabilities

According to the relationship between the performance of obligations and the customer payment, the Company presents contract assets or contract liabilities in the balance sheet. The Company's right to receive consideration for transfer of goods or provision of services to customers (and the right depends on other factors than the passage of time) is listed as contract assets, while the Company's obligation for transfer of goods or provision of services to customers due to consideration received or receivable from the customers is listed as contract liabilities. Contract assets and contract liabilities under the same contract shall be presented at net amount. The unconditional (only depending on the time lapses) right to the charge of consideration from the customer, possessed by the Company, is presented as receivables.

4.13.2 Determination method and accounting treatment for the expected credit loss of contract assets

See the accounting treatment of accounts receivable in "Note 4.9 Financial Instruments - Companies that have implemented the New Standards for Financial Instrument" for the determination method and accounting treatment of the expected credit losses of contractual assets.

4.14 Long-term equity investments

4.14.1 Judgment criteria for joint control and significant influence

Joint control refers to the control shared over an arrangement in accordance with the relevant stipulations, and the decision-making of related activities of the arrangement should not be made before the party sharing the control right agrees the same. Where the Company exercises common control over the investee together with other parties to the joint venture and enjoys the right on the investee's net assets, the investee is a joint venture of the Company.

Significant influence refers to the power of participating in decision-making of a company's financial and operational policies, to the extent that the preparation of the said policies cannot be controlled or under the common control with other parties. Where the Company is able to exert significant influence over the investee, the investee is its associate.

4.14.2 Determination of initial investment costs

(1) Long-term equity investment acquired from business combination

Business combination under common control: If the Company pays a consideration to the combinee in cash, by transferring non-cash assets or by assuming debts and issuing equity securities, the share of book value of its owners' equity in the combinee in the consolidated financial statements of the ultimate controller shall be recognized, on the combination date, as the initial cost of the long-term equity investment. For long-term equity investments acquired from business combinations under common control, the investment initial cost thereof shall be recognized at the share of book value of the combinee's net assets in the consolidated financial statements of the ultimate controller on the acquisition date. If there is a difference between the initial cost of the long-term equity investment on the combination date and the book value of the long-term equity investment before combination plus the book value of the additional consideration acquired on the combination date through new share-based payment, the difference shall be used to adjust the share premium; and if the share premium is insufficient to be offset, retained earnings shall be reduced.

Business combination not under common control: The Company recognizes the combination cost determined on the combination date as the initial investment cost of long-term equity investments. Where the Company can control the investee not under common control due to additional investments or other reasons, the initial investment cost should be changed to be accounted for under the cost method and recognized at the sum of the book value of equity investments originally held and newly increased investment cost.

(2) Long-term equity investment acquired by other means
For long-term equity investments acquired through making payments in cash, its initial investment cost is the actually paid purchase cost.

For long-term equity investments acquired from issuance of equity securities, its initial investment cost is the fair value of the issued equity securities.

4.14.3 Subsequent measurements and recognition of profit or loss

(1) Long-term equity investments accounted for under the cost method
Long-term equity investments of the Company in its subsidiaries are accounted for under the cost method, unless those investments satisfy the conditions of holding for sale. Under the cost method, except for the actual price paid for acquisition of investment or the cash dividends or profits contained in the consideration which have been declared but not yet distributed, the Company recognizes the proportion it shall enjoy in the cash dividends or profits declared by the investee as its investment income.

(2) Long-term equity investments accounted for under equity method
Long-term equity investments in associates and joint ventures are accounted for under the equity method. If the initial investment cost is in excess of the share of fair value of the net identifiable assets in the investee when the investment is made, the difference will not be adjusted to the initial cost of long-term equity investment; if the initial investment cost is in short of the share of the fair value of the net identifiable assets in the investee when the investment is made, the difference will be included in the current profit or loss, and will be adjusted to the initial cost of long-term equity investment.

The Company respectively recognizes the investment income and other comprehensive income according to the shares of net profit or loss and other comprehensive income realized by the investee that should enjoyed or assumed by the Company, and adjusts the book value of long-term equity investment; according to the profit declared to be distributed by the investee or the part shall be enjoyed cash dividends calculation, to reduce the book value of long-term equity investment correspondingly; for other changes in owners' equity excepting for ex all profit or loss of the investee, other comprehensive income and profit distribution, the book value of long-term equity investment shall be adjusted and included in the owners' equity.

When recognizing the share of net profit or loss of the investee that the Company shall enjoy, based on fair value of various identifiable assets and others of the investee on acquisition and according to accounting policies and accounting periods of the Company, the Company shall recognize such share after making adjustments to net profit of the investee. During the holding investment period, where an investee prepares consolidated financial statements, the amount lies in the net profit, other comprehensive income and changes in other owners' equity of the consolidated financial statements which belongs to the investee shall be took as the basis for accounting.

The profit or loss of the internal transactions that are not realized arising among the Company, affiliated enterprises, and joint ventures will be offset at the part attributable to the Company and the investment income will be recognized on that basis. For internal trading losses that have not occurred with the investee, they will be fully recognized if they belong to the asset impairment losses. For transactions on investments or sales of assets between the Company and associates and joint ventures, where such assets constitute business, they should be accounted for according to the relevant policies disclosed in Notes "4.4 Accounting treatment of business combinations under common control and not under common control" and "4.5 Preparation methods of consolidated financial statements".

When the Company confirms that it should share losses of the investee, treatment shall be done in following sequence: Firstly, writing down the book value of long-term equity investments. Secondly, where the book value thereof is insufficient to cover the share of losses, investment losses are recognized to the extent of book value of other long-term equities which form net investment in the investee in substance and the book value of long term receivables shall be reduced. Finally, after all the above treatments, if the Company is still responsible for any additional liability in accordance with the provisions stipulated in the investment contracts or agreements, the Company will recognize an estimated liability based on its expected obligations, and include the estimated liability in the current investment loss.

When the investee realizes net increase in the net profit or other comprehensive income in the future period, the Company shall conduct accounting treatment in accordance with the reverse order at the time of previous confirmation or registration of the relevant net investment loss, that is, reducing the net losses from unrecognized investments, restoring other long-term equity and the book value of long-term equity investments, reviewing the book value of the estimated liabilities, and making adjustments according to the best estimate after review.

(3) Disposal of long-term equity investments

For disposal of long-term equity investments, the difference between the book value and the actual price shall be included in the current investment income.

For long-term equity investments accounted for under the equity method, when the Company disposes such investments, accounting treatment should be made to the part that is originally included in other comprehensive income according to the corresponding proportion by using the same basis for the investee to directly dispose the relevant assets or liabilities. Owners' equity recognized from changes in other owners' equity of the investee other than net profit or loss, other comprehensive income and profit distribution shall be included in the current profit or loss according to the proportion, except for other comprehensive income from the change in net liability or net asset due to the investor's re-measurement of designated benefit plan.

In case the joint control or significant influence over the investee is lost for disposing part of equity investments and other reasons, the remaining equity will be changed to be accounted for according to the recognition and measurement principles of financial instruments. The difference between the fair value and the book value on the date of the loss of joint control or significant influence should be included in the current profit or loss. As to other comprehensive income recognized based on measurement of the original equity investment under the

equity method, accounting treatment shall be made on the same basis as would be required if the investee had directly disposed of the assets or liabilities related thereto when measurement under the equity method is terminated. Owner's equity recognized from changes in other owner's equity of the investee other than net profit or loss, other comprehensive income and the profit distribution should be included in the current profit or loss when the equity method is terminated.

Where the Company loses the control over the investee due to disposal of partial equity investments, the decline in its proportion of shareholding caused by the increase of investment in subsidiaries by other investors, or other reasons, when it prepares individual financial statements, if the remaining equity can exercise joint control or significant influence on the investee, such investments should be changed to be accounted for under the equity method and the remaining equity should be deemed to have be adjusted on acquisition, namely when the equity method is adopted for accounting; if the remaining equity can exercise joint control or significant influence on the investee, such equity will be changed to be accounted for according to recognition and measurement standards of financial instruments and the difference between fair value and book value on the date of loss of the control or significant influence should be included in the current profit or loss.

Where the disposed equities are acquired by the enterprise combination due to the reasons such as additional investment, the remaining equities after the disposal are calculated based on the cost method or equity method in preparing the individual financial statements, and other comprehensive income and other owners' equity recognized because of the equity method adopted for the calculation of the equity investment held prior to the purchase date are carried forward in proportion; the remaining equities after the disposal are changed to be made in accordance with the relevant provisions in the recognition and measurement criteria of financial instruments while other comprehensive income and other owners' equity are carried forward in full.

4.14.4 Recognition criteria and provision method for provision for impairment of long-term equity investments

The Company assesses whether there is any indication that long-term equity investments may be impaired on the balance sheet date.

If there is any indication that the long-term equity investments are impaired and in case of the book value of long-term equity investments greater than the book value of owners' equity enjoyed in the investee or other similar situations, the impairment test shall be made over the long-term equity investments.

If the recoverable amount of the long-term equity investments is less than its book value after test, impairment provision will be made at the difference and included into impairment loss. The above losses from impairment cannot be reversed in subsequent accounting periods, once recognized.

4.15 Investment properties

The investment properties refer to the real estate held for earning rentals or/and capital appreciation. The investment properties of the Company include leased land use right, land use right held for transfer upon appreciation, and leased building (including self-built buildings or buildings developed for renting or buildings under construction or development for future renting).

The Company's investment properties are initially measured at the cost at the time of their acquisition, and is subsequently measured under the fair value mode on the balance sheet date. No depreciation or amortization is made by the Company for the investment properties, whose book value is adjusted based on the fair value of the investment properties on the balance sheet date, and the difference between the fair value and the original book value thereof is included in the current profit or loss.

4.16 Fixed assets

4.16.1 Recognition criteria of fixed assets

Fixed assets are tangible assets that are held for use in the production of goods or supply of services, for rental to others, or for administrative purposes and have useful life of more than one accounting year.

The fixed assets shall be only recognized when the following conditions are satisfied: the economic benefits relating to the fixed assets may flow into the Company, and the costs of the fixed assets can be measured reliably.

The Company initially measures its fixed assets based on their actual costs when acquired.

4.16.2 Classification and depreciation policy of fixed assets

Depreciation method for the Company's fixed assets generally adopts the straight-line method. The depreciation rates are determined according to the categories, estimated useful lives and estimated net residual rates of fixed assets. The units-of-production method is adopted for the open-pit coal mines and roadways buildings. The mining roadway funds are provided as the depreciation of mine pit assets as required according to the raw coal production.

Where various components of fixed assets are different in useful lives or bring economic benefits for the enterprise in different ways, then the Company should choose different depreciation rates or methods to separately provide for depreciation. Specifically, for fixed assets of which provision for impairment has been made, the depreciation rate shall be determined based on the fixed assets deducting the accumulated amount of provision for impairment withdrawn.

The Company should review useful lives, estimated net residual rate and depreciation methods of the fixed assets at the end of each year. For any differences between the estimated useful life and the previous estimates, the useful life of the fixed assets shall be adjusted; for any differences between the estimated net residuals and the previous estimates, the estimated net residual shall be adjusted.

For fixed assets acquired under finance leases, if there is reasonable assurance that the lease will obtain the ownership of the leased assets when the lease term expires, the leased assets should be depreciated over its useful life; if there is no reasonable assurance that the lease will obtain the ownership of the leased assets when the lease term expires, the leased assets should be depreciated over the shorter of the lease term or useful life of the leased assets.

China Power International Development Limited, a subsidiary of the Company, has implemented the new lease standards from January 1, 2019 by the resolution of the board of directors. From January 1, 2019, the depreciation will be accrued according to the relevant provisions on the right-of-use asset in the new lease standards. Please see the accounting treatment of the right-of-use asset in the Note "4.32 Leases - Companies that have implemented the new lease standards".

The provision for depreciation should be made when the fixed assets have reached the working condition for their intended use and ceased at the time of derecognition or the fixed assets are classified as non-current assets held for sale.

Depreciation life and depreciation rate of various fixed assets are as follows:

Category	Depreciation life (year)	Residual value rate (%)	Annual depreciation rate (%)
Buildings and constructions	8-55 years	0-10	1.64-12.50
Machinery equipment	6-30 years	0-10	3.00-16.67
Means of transportation	6-10 years	3-10	9.00-16.17
Electronic equipment	5 years	0-10	18.00-20.00
Fixed assets acquired under finance lease (applicable to old lease standards)			
Buildings and constructions	8-55 years	0-10	1.64-12.50
Machinery equipment	6-30 years	0-10	3.00-16.67
Means of transportation	6-10 years	3-10	9.00-16.17
Electronic equipment	5 years	0-10	18.00-20.00
Fixed assets leased out through operating (applicable to the new lease standards)			
Buildings and constructions	8-55 years	0-10	1.64-12.50
Machinery equipment	6-30 years	0-10	3.00-16.67
Means of transportation	6-10 years	3-10	9.00-16.17
Electronic equipment	5 years	0-10	18.00-20.00
Other equipment			

4.16.3 Accounting treatment of subsequent expenses of fixed assets

The subsequent expenses on fixed assets refer to expenses on renewal, reconstruction and repair incurring in the course of using the fixed assets.

For the subsequent renovation and transformation expenses of fixed assets meeting the Company's recognition criteria of fixed assets, they shall be included in costs of fixed assets after deducting the book value of replaced part; for repair expenses of fixed assets not meeting such recognition criteria, they shall be recorded into current profit or loss when incurred.

4.16.4 Recognition criteria and provision method for provision for impairment of fixed assets

The Company assesses whether there is any indication that fixed assets may be impaired at the end of each period.

If there is any indication that the fixed assets may be impaired, the Company will estimate the recoverable amount thereof. The recoverable amount of the fixed assets is the higher of the net amount of the fair value of the fixed assets less disposal expenses or the present value of the estimated future cash flows of such fixed assets.

If the recoverable amount of any fixed asset is lower than its book value, the book value will be written down to the recoverable amount. The amount written down should be recognized as impairment loss of the fixed asset and included in the current profit or loss; meanwhile, the corresponding provision for impairment of the fixed asset will be made.

When the impairment loss of the fixed asset is determined, the depreciation for impaired fixed asset will be adjusted accordingly in the future for amortizing the book value (deducting the estimated net residual value) of adjusted fixed assets over the remaining useful life on a systematic basis.

Losses from the impairment of fixed assets should not be reversed in subsequent accounting periods, once recognized.

If any indication suggests that a fixed asset may be impaired, the Company estimates the recoverable amount of the individual asset. If it is difficult to estimate the recoverable amount of the individual asset, the Company estimates the recoverable amount of the asset group that the individual asset belongs to.

4.16.5 Recognition basis and measurement of fixed assets acquired under financial lease

The fixed assets acquired under financing lease are recognized if one of the following conditions is specified by the Company and the leaser in their lease agreement:

(1) The ownership of the leased asset belongs to the Company at the expiration of lease term;

(2) The Company has the option to buy the asset at a price which is far lower than the fair value of the leased asset at the date when the option becomes exercisable;

(3) The lease term covers the major part of the useful life of the leased asset;

(4) The present value of the minimum payment by the Company on the lease commencement date is almost equal to the asset's fair value.

On the lease commencement date, the book entry value of a fixed asset acquired under financing lease is measured at the asset's fair value or the present value of the minimum lease payment, whichever is the lower. The minimum lease payment is recorded as the book entry value of the long-term payables, and the difference between them is deemed as the unrecognized financing expenses.

China Power International Development Limited, a subsidiary of the Company, has implemented the new lease standards from January 1, 2019 upon the resolution of the board of directors. From January 1, 2019, the recognition and measurement will be

conducted according to the relevant provisions on the right-of-use asset in the new lease standards. Please see the accounting treatment of the right-of-use asset in the Note "4.32 Leases - Companies that have implemented the new lease standards".

4.17 Construction in progress

4.17.1 Initial measurement of construction in progress and criteria for construction in progress conversion into fixed assets

The Company's costs of construction in progress are determined according to actual project expenditures, including all necessary project expenses incurred during the construction period, the borrowing costs that shall be capitalized before the construction reaches its condition for the intended use and other related expenses.

Constructions in progress are transferred to fixed assets when they reach the condition for its intended use.

The book value of the fixed assets is stated at necessary expenditures incurred before construction in progress reaching the working conditions for their intended use. For construction in progress that has reached working conditions for its intended use but for which the completion of settlement has not been handled, it shall be transferred into fixed assets at the estimated value according to the project budget, construction price or actual cost, etc. from the date when it reaches the working conditions for its intended use. The fixed assets shall be depreciated in accordance with the Company’s policy on fixed asset depreciation. Adjustment shall be made to the originally and provisionally estimated value based on the actual cost after the completion of settlement is handled, but depreciation already provided will not be adjusted.

4.17.2 Recognition criteria and provision method of provision for impairment of construction in progress

The Company assesses whether there is any indication that construction in progress may be impaired at the end of each period.

If there is any indication that the construction in progress may be impaired, the Company will estimate the recoverable amount thereof. If there is any indication that construction in progress may be impaired, the Company shall estimate the recoverable amount on the basis of single construction. If it is difficult to estimate the recoverable amount of single construction, the Company shall determine the recoverable amount of the assets group that such construction belongs to.

The recoverable amount of the construction in progress is the higher of the net amount of the fair value of the construction in progress less disposal expenses or the present value of the estimated future cash flows of such construction in progress.

If the recoverable amount of any construction in progress is lower than its book value, the book value will be written down to the recoverable amount. The amount written down should be recognized as impairment loss of the construction in progress and included in the current profit or loss; meanwhile, the corresponding provision for impairment of the construction in progress will be made.

Losses from the impairment of construction in progress should not be reversed in subsequent accounting periods, once recognized.

4.18 Borrowing costs

4.18.1 Recognition criteria of capitalization of borrowing costs

Borrowing costs include the interest of borrowings, the amortization of discount or premium, auxiliary expenses, exchange differences incurred by foreign currency borrowings, etc.

The borrowing costs incurred to the Company and directly attributable to the acquisition and construction or production of assets eligible for capitalization should be capitalized and included in relevant asset costs; other borrowing costs should be recognized as costs based on the amount incurred and be included in the current profit or loss.

Assets eligible for capitalization refer to fixed assets, investment properties, inventories and other assets which may reach their intended use or sale status only after long-time acquisition and construction or production activities.

The borrowing costs can be capitalized only when they simultaneously meet the following requirements:

(1) Asset expenditures, which include those incurred by cash payment, the transfer of non-cash assets or the undertaking of interest-bearing debts for acquiring and constructing or producing assets eligible for capitalization, have already been incurred;

(2) Borrowing costs have already been incurred;

(3) The acquisition and construction or production activities which are necessary to prepare the assets for their intended use or sale have already been started.

4.18.2 Capitalization period for borrowing costs

Capitalization period refers to the period from the beginning of capitalization to the cease of capitalization, excluding the period of capitalization suspension of borrowing costs.

Capitalization of borrowing costs should be ceased when the acquired and constructed or produced assets eligible for capitalization have reached their intended use or sale status.

When some projects among the acquired and constructed or produced assets eligible for capitalization are completed and can be used separately, the capitalization of borrowing costs of such projects should be ceased.

If all parts of the acquired and constructed or produced assets are completed but the assets cannot be used or sold externally until overall completion, the capitalization of borrowing costs should be ceased at the time of overall completion of the said assets.

4.18.3 Period of capitalization suspension

If the acquisition and construction or production activities of assets eligible for capitalization are abnormally interrupted and such condition lasts for more than three months, the capitalization of borrowing costs should be suspended; if the interruption is necessary procedures for the acquired, the constructed or produced assets eligible for capitalization to reach the working conditions for its intended use or sale, the borrowing costs continue to be capitalized. Borrowing costs incurred during the interruption are recognized as the current profit or loss and continue to be capitalized until the acquisition, construction or production of the assets restarts.

4.18.4 Calculation method of capitalized amounts of borrowing costs

As for special borrowings borrowed for acquiring and constructing or producing assets eligible for capitalization, borrowing costs of special borrowing actually incurred in the current period less the interest income of the borrowings unused and deposited in bank or return on temporary investment should be recognized as the capitalization amount of borrowing costs.

As for general borrowings used for acquiring and constructing or producing assets eligible for capitalization, the interest of general borrowings to be capitalized should be calculated by multiplying the average of the weighted average of asset disbursements of the part of accumulated asset disbursements exceeding special borrowings at end of each month by the capitalization rate of used general borrowings. The capitalization rate is calculated by weighted average interest rate of general borrowings.

Where there are discounts or premiums on borrowings, the amounts of interest for each accounting period should be adjusted taking account of amortizable discount or premium amounts for the period at effective interest method.

4.19 Intangible assets

4.19.1 Recognition of intangible assets

The "intangible assets" refers to the identifiable non-monetary assets which have no physical shape and are possessed or controlled by the Company. Intangible assets will only be recognized when all the following criteria are satisfied:

(1) It is probable that the economic benefits relating to the intangible assets may flow into the Company;

(2) The costs of the fixed assets can be measured reliably.

4.19.2 Measurement of intangible assets

(1) The Company initially measures intangible assets at cost on acquisition.

The costs of external purchase of intangible assets comprise their purchase prices, related taxes and surcharges and any other directly attributable expenditure incurred to prepare the asset for its intended use. If payments for the purchase of intangible assets are extended beyond the normal credit terms with financing nature, the costs of intangible assets are determined on the basis of present values of the purchase prices.

For intangible assets obtained through debt restructuring that are used by debtors for offsetting debts, its book value is determined by the fair value of the abandoned creditor's right and the taxes directly attributable to the assets reaching intended use, and the difference between the fair value of the abandoned creditor's right and the book value is included into the current profit or loss.

On the premise that non-monetary assets trade is of commercial nature and the fair value of the assets traded in and out can be measured reliably, the intangible assets traded in with non-monetary assets should be recognized at the fair value of the assets traded out, unless any unambiguous evidence indicates that the fair value of the assets traded in is more reliable; as to the non-monetary assets trade not meeting the aforesaid premise, the book value of the assets traded out and related taxes and surcharges payable should be recognized as the cost of the intangible assets, with profits or losses not recognized.

(2) Subsequent measurement of intangible assets
The useful lives of the intangible assets are analyzed and determined on their acquisition.

Intangible assets with definite useful lives are amortized under the straight-line method over the period during which they can bring economic benefits to an enterprise; if the period during which intangible assets can bring economic benefits to the enterprise cannot be forecasted, the intangible assets will be deemed as intangible assets with indefinite useful lives and will not be amortized.

4.19.3 Provisions for impairment on intangible assets

For the intangible assets with definite useful lives, in case of any obvious indication of impairment, the impairment test will be conducted at the end of the period.

For the intangible assets with indefinite useful lives, the impairment test will be conducted at the end of the period.

Impairment test will be conducted for intangible assets, and the recoverable amount thereof will be estimated. If evidence suggests that an intangible asset is impaired, the Company will estimate its recoverable amount on an individual basis. If it is difficult for the Company to estimate the recoverable amount of the individual asset, the recoverable amount of an asset group to which the said intangible asset belongs will be determined.

The recoverable amount of the asset is the higher of the net amount of the fair value of intangible assets less disposal expenses or the present value of the estimated future cash flows of the intangible assets.

If the recoverable amount of an intangible asset is lower than its book value, the book value will be written down to the recoverable amount. The amount written down should be recognized as impairment loss of the intangible asset and included in the current profit or loss; meanwhile, corresponding provision for impairment of the intangible asset will be made.

After the confirmation of impairment loss of intangible assets, the depreciation or amortization cost of the impaired intangible assets will be adjusted accordingly in the future for amortizing the book values (with the estimated net residual value deducted) of adjusted intangible assets over their remaining useful lives on a systematic basis.

The impairment loss of intangible assets should not be reversed in subsequent accounting periods, once recognized.

4.19.4 Specific criteria for classification of research phase and development phase of the Company's internal research and development projects

The Company's internal research and development expenses include those incurred in the research phase and those in the development phase.

Research stage: research stage is the stage when creative and planned investigation and research activities are conducted to acquire and understand new scientific or technological knowledge.

Development stage: development stage is the stage when the research achievements and other knowledge are applied to a plan or design, prior to the commercial production or use, so as to produce any new or substantially improved material, device or product.

4.19.5 Specific criteria for qualifying expenditure on the development phase for capitalization

Expenditures on the development stage of an internal research and development project shall be recognized as intangible assets only when the following conditions are simultaneously satisfied:

(1) In respect of the technology, it is feasible to finish the intangible asset for use or sale;

(2) It is intended to finish and use or sell the intangible asset;

(3) The usefulness of methods for intangible assets to generate economic benefits shall be proved, including being able to prove that there is a potential market for the products manufactured by applying the intangible assets or there is a potential market for the intangible assets itself or the intangible assets will be used internally;

(4) With the support of sufficient technologies, financial resources and other resources, it is able to finish the development of the intangible asset, and it is able to use or sell the intangible asset; and

(5) The expenditures attributable to the development phase of the intangible assets can be reliably measured.

Development expenditures which fail to satisfy the above-mentioned conditions are recognized as intangible assets when such expenditures occur. Research expenditures are included in the current profit or loss when such expenditures occur.

4.20 Goodwill

For goodwill arising from business combination under common control, its initial cost is the difference of the acquisition cost in excess of the share of fair value of the acquiree's net identifiable assets acquired in the combination.

Goodwill will be transferred out upon the disposal of the related asset group or portfolio of asset groups, and included in the current profit or loss.

The Company does not amortize the goodwill, but conducts the impairment test for goodwill at least once at the end of each year.

The Company has conducted an impairment test of goodwill. The book value of goodwill arising from business combination is amortized to related asset groups by the reasonable method as of the purchase date; if it is difficult do so, such value will be amortized to the relevant portfolio of asset groups. The Company amortizes the book value of goodwill based on the benefit relevant asset group or portfolio of asset groups can obtain from the synergistic effect of business combination, and makes the provision for impairment of goodwill on that basis.

At the time of making an impairment test on the relevant asset groups or portfolios of asset groups containing goodwill, if any indication shows that the goodwill-related asset group or portfolio of asset groups may have been impaired, the Company will firstly conduct an impairment test on the asset groups or portfolios of asset groups not containing goodwill, calculate the recoverable amount and compare it with the relevant book value, to recognize the corresponding impairment loss. Then the Company shall conduct an impairment test on the assets groups or combinations of assets groups containing goodwill, and compare the book value of these assets groups or combinations of assets groups (including the book value of the

goodwill apportioned thereto) with the recoverable amount. Where the recoverable amount of the relevant assets groups or combinations of assets groups is lower than the book value thereof, the Company shall recognize the impairment loss of the goodwill.

The above losses from impairment of goodwill cannot be reversed in subsequent accounting periods, once recognized.

4.21 Long-term deferred expenses

The long-term deferred expenses of the Company include the improvement expenditure of fixed assets leased in.

Long-term deferred expenses are measured at the actual costs and amortized evenly over the estimated beneficial period. If a long-term deferred expense cannot bring any benefit in the future accounting period, the amortized value of such expense will be fully included in the current profit or loss.

4.22 Employee compensation

4.22.1 Short-term compensation

During the accounting period when employees serve the Company, the actual short-term compensation is recognized as liabilities and included in the current profit or loss or costs associated with assets.

During the accounting period when employees serve the Company, the social insurance premiums such as the medical insurance premium, work-related injury insurance premium and maternity insurance premium and housing fund, as well as labor union funds and employee education funds paid for employees by the Company are calculated and withdrawn at the withdrawing basis and proportion provided to determine the amount of employee compensation.

Employee welfare expenses in the non-monetary form are measured at fair value.

4.22.2 Dismissal welfare

When the Company fails to unilaterally withdraw the dismissal benefits offered due to the termination of the labor relation plan or layoff proposal or confirms the costs or fees associated with the reorganization involving the payment of the dismissal benefits (whatever is earlier), the employee compensation liabilities arising from the confirmation of dismissal benefits are included in the current profit or loss.

4.22.3 Post-employment benefits

(1) Defined contribution plans

The Company pays the basic endowment insurance premiums and unemployment insurance for employees according to the relevant provisions of the local governments. During the accounting period when employees serve the Company, the paid amount which is calculated based on the payment base and proportion as stipulated in the provisions of the local place is recognized as liabilities and included in the current profit or loss or related asset costs.

In addition to the basic endowment insurance, the Company has also established an enterprise annuity contribution system (supplementary endowment insurance) in accordance with the policies regarding the national enterprise annuity contribution system. The Company pays to the local social insurance agencies at a certain proportion of the total amount of wages of employees, with the corresponding expenditures included in the current profit or loss or assets-related cost.

(2) Defined benefit plans

The Company attributes the benefit obligation under the defined benefit plan to the period during which employees provide service to the Company, based on the formula of the projected unit credit method, and includes the same in the current profit or loss or costs associated with assets.

The deficit or surplus arising from the balance of the present value of the obligations of the defined benefit plans net of the fair value of assets thereof is recognized as a net liability or net asset of the defined benefit plan. For a surplus of defined benefit plans, the Company should measure the net asset of such defined benefit plans at the lower of the surplus of such defined benefit plans and the asset thereof.

All obligations of defined benefit plan include the obligation of payment during the 12 months after the end of the annual reporting period of expected receipt of services from employees, and are discounted according to the market yields of state bond with the same currency or high quality corporate bond prevailing on the balance sheet date and during the obligation period of defined benefit plan.

The service costs of the defined benefit plan and net interest on the net liabilities or net assets in respect of the defined benefit plan are charged to the current profit or loss or cost of relevant assets; changes arising from re-measurement of net liabilities or net assets of defined benefit plans should be included in other comprehensive income and should not be reversed in subsequent accounting periods.

At the time of the settlement of defined benefit plan, the profit or loss is determined according to the difference between the present value of the defined benefit plan obligations and settlement price confirmed on the settlement date.

4.23 Share-based payment

4.23.1 Type of share-based payment

The Company's share-based payments are transactions in which the Company grants equity instruments or undertakes equity-instrument-based liabilities in return for services from employees [or other parties]. The Company's share-based payments include equity-settled share-based payments and cash-settled share-based payments.

(1) Equity-settled share-based payment and equity instruments

Where equity-settled share-based payments are exchanged for providing services by employees, their fair values are measured at those of employees' equity instruments. Where the Company makes share-based payments in restricted stocks and the employee makes capital contributions to subscribe such shares, such shares should not be circulated or transferred before they reach unlocked conditions and before they are unlocked; if the unlocked conditions specified in the final equity incentive plan fail to be reached, then the Company should repurchase the shares at the price agreed in advance. When the Company received the payment of the employee for the subscription of restricted stocks, it should recognize share capital and capital reserves (share premiums) in accordance with the payment for subscription received. The Company should fully recognize a liability at the repurchase obligations and recognize treasury stock at the same time. On each balance sheet date within the waiting period, the Company will, based on the newly-acquired subsequent information such as the changes in the number of the vested employees and whether the specified performance is reached, make the best estimate on the number of the vesting equity instruments. On such basis, the services received in the current period should be included in the relevant cost or expenses according to fair value on the date of grant and capital reserves should be accordingly increased. After the

vesting date, no adjustments will be made to the sum of the relevant recognized costs or expenses and total owners' equity. However, when the right can be exercised immediately after the grant, it should be included in the relevant costs or expenses at the fair value on the date of grant. The capital reserves should be increased accordingly.

Costs and expenses shall not be recognized for the share-based payment failing to be excised finally, unless the non-vesting condition being the marketing condition or the vesting condition, under which circumstance, the vesting shall be deemed, if only the non-marketing condition in all vesting conditions is satisfied.

In case any clause on the equity-settled share-based payment has been modified, services acquired should be recognized as if such clause has not been modified. In addition, the increase in services acquired should be recognized in case of any increase to the fair value of equity instruments granted or any change favorable to employees on the date of increasing such fair value.

If the equity-settled share-based payment is cancelled, the Company will accelerate the right exercise on the cancellation date, and immediately recognize the amount which has not been recognized. If any employee or other party is able to choose to satisfy the conditions other than those for the exercisable right but fail to do so during the waiting period, the Company will consider that the employee or such party has cancelled the equity-settled share-based payment. However, if any new equity instrument is granted and on the date of granting such new equity instrument, it is affirmed that such new equity instrument can replace the canceled one, the treatment for such new equity instrument will be made in the way for modifying terms and conditions of the original equity instrument.

(2) Cash-settled share-based payment and equity instrument
Cash-settled share-based payment is measured at the fair value of the liability which is assumed by the Company and calculated based on share or other equity instrument. The Company includes the share-based payment for which relevant right can be exercised subsequent to the grant of equity instruments in relevant costs or expenses on the grant date at the fair value of the liability it assumes, and increase liabilities accordingly. For the share-based payment for which relevant right can be exercised after the grant of equity instruments only when the services during the waiting period are completed or the specified performance conditions are met, on each balance sheet date within the waiting period, the Company, based on the best estimate on the situation of exercising relevant right, includes the services acquired during that period in relevant costs or expenses and in liabilities according, at the fair value of the liability the Company assumes. On each balance sheet date and settlement date prior to the settlement of relevant liabilities, the fair value of liability should be remeasured through the current profit or loss.

4.23.2 Method for determining the fair value of equity instrument

The Company determines the fair value of such equity instrument as granted shares with an active market at the price quoted in the active market and based on the terms and conditions on granting these shares. It determines the fair value of such equity instrument as granted share option without an active market by such valuation technique as option pricing model and based on the terms and conditions on granting these shares.

4.23.3 Basis for determining the optimum estimate of equity instrument with exercisable right

On each balance sheet date within the waiting period, the Company makes the optimum estimate based on such newly-obtained subsequent information as the change in the number of employees with exercisable right, and modifies the estimated quantity of equity instruments with exercisable right. On the vesting date, the finally estimated quantity of equity instruments with exercisable right should be consistent with the actual quantity of exercisable rights.

4.24 Bonds payable

The publicly offered bonds are initially measured at the amount of the fair value less the transaction cost amount and are measured subsequently based on the amortized cost under the effective interest rate method during the remaining period.

The interest costs are capitalized when they are eligible for capitalization, otherwise they are directly included in the current profit or loss.

4.25 Estimated liabilities

When an obligation relating to a contingency meets all the following conditions at the same time, it will be recognized as an estimated liability by the Company:

(1) Such obligation is a present obligation of the Company;

(2) The performance of such obligation is likely to result in outflow of economic benefits from the Company;

(3) The amount of the obligation can be measured reliably.

Estimated liabilities are initially measured at the best estimate of expenses required for the performance of relevant present obligations.

When determining the best estimates, the Company comprehensively considers the risks, uncertainties, time value of money and other factors relating to contingencies. If the time value of money is significant, the best estimates will be determined after discount of relevant future cash outflows.

If there is continuous range for the necessary expenses, and probabilities of occurrence of all the outcomes within this range are equal, the best estimate will be determined at the intermediate value; in other cases, the best estimate is subject to the treatment for the following circumstances:

- If contingencies are involved with single project, the estimate will be determined based on the amount which is most likely to occur;

- If contingencies are involved with several projects, the estimate will be determined based on various possible results and relevant probabilities.

If all or part of the expenses necessary for liquidating estimated liabilities are expected to be compensated by a third party, the compensation will be separately recognized as assets when it is virtually certain that the compensation will be received. The compensation recognized should not exceed the book value of estimated liabilities. The Company reviews the book value of estimated liabilities on the balance sheet date. If there is unambiguous evidence indicating that such book value cannot reflect the current best estimate, such book value will be adjusted based on the current best estimate.

4.26 Preferred stock, perpetual bond and other financial instruments

According to the contract terms on preferred stock or perpetual bond issued, and the economic essence reflected by the preferred stock or perpetual bond, the Company, in combination with

definitions of financial assets, financial liabilities and equity instruments, classifies these financial instruments or their components at financial assets, financial liabilities or equity instruments, at the initial recognition.

The financial instruments issued by the Company, such as the preferred stock and perpetual bond are classified as financial liabilities in whole or in the constituent part at the initial recognition, as long as they meet one of the following conditions:

(1) Including the contract obligation where the Company cannot unconditionally avoid to pay with cash or other financial assets;

(2) Covering the contract obligation of delivering the own equity instruments with variable number for settlement;

(3) Including the derivative instrument settled with the own equity (such as the convertibility), and the settlement of such derivative instrument does not be conducted by exchanging the cash or other financial assets of fixed assets with the own equity instrument with fixed number;

(4) Including the contract term where the contract obligation can be formed indirectly;

(5) On the liquidation of the issuer, the perpetual bond is at the same liquidation order with the ordinary bonds and other obligations issued by the issuer.

Where the financial instruments, including the preferred stock/ perpetual bond, fail to meet one of the above conditions, they may be classified as equity instruments in whole or in the constituent part at the initial recognition.

For preferred stock or perpetual bond issued by the Company and including both equity component and liability component, the Company adopts the accounting policy for convertible financial instruments including the equity component for treatment. For preferred stock or perpetual bond issued by the Company and not including the equity component, the Company adopts the accounting policy for convertible financial instruments not including the equity component for treatment.

For the preferred stock which is issued by the Company and should be classified into the equity instruments, the Company includes the paid-in amount of the preferred stock in the equity instruments. If the distribution of dividends and interest exists over the duration, it should be taken as profit distribution. If the preferred stocks have been redeemed according to contract terms, the redemption price will be used to offset relevant equity.

4.27 Revenue

Companies which have not implemented the new standards for revenue

4.27.1 Recognition of revenue from sales of goods

Revenues from sale of good are recognized when meeting the following conditions at the same time:

1) The Company has transferred significant risks and rewards of ownership of the goods to the buyer;

2) The Company retains neither continuous management rights associated with ownership of the goods sold nor effective control over the goods sold;

3) It is probable that the amount of revenue can be measured reliably;

4) The related economic benefits are likely to flow into the Company;

5) The relevant amounts of costs that have occurred or will occur can be measured reliably.

4.27.2 Recognition of revenue from rendering of services

Where the transaction result of rendering of service can be estimated reliably, revenue from rendering of service is recognized by using the percentage-of-completion method at the end of the period.

4.27.3 Recognition of revenue from transferring the use right of assets

The revenue from transferring the use right of assets can be recognized when the economic interest related to the transfer of the use right of assets is likely to flow into the enterprise and the revenue amount can be measured reliably. The revenue from transferring the use right of assets will be determined based on the following circumstances:

(1) Interest income is determined based on the time when the monetary funds of the enterprise are used by others and the effective interest rate.

(2) The amount of royalty revenue is determined based on the charging time and method as agreed in relevant contract or agreement.

4.27.4 Basis and method of recognizing the progress of completion, when determining revenue from rendering of service and revenue from construction contract by the percentage-of-completion method

When the outcome from the rendering of service can be estimated reliably on the balance sheet date, the revenue from rendering of service will be recognized by the percentage-of-completion method. The percentage of completion of service rendering is determined by measuring the completed work.

Total revenue from rendering of services is recognized at received or receivable contract or agreement price, unless such price is not fair. The current revenue from rendering of services is recognized on the balance sheet date at the amount of the total revenue from rendering of services by multiplying the percentage of completion and then deducting the total revenue from rendering of services accumulated and recognized in prior periods; meanwhile, the current service costs are carried forward at the total expected costs for rendering of services by multiplying the percentage of completion and deducting the service costs accumulated and recognized in prior periods.

When the outcome of transactions involving the rendering of services cannot be estimated reliably, it will be handled on the balance sheet date as follows:

(1) If the service costs incurred are expected to be recoverable, the amounts equal to the costs incurred should be recognized as service revenues and the equivalent amounts should be included in the service costs.

(2) If the service costs incurred are not expected to be fully compensated, they will be included in the current profit or loss, without the recognition of the revenue from rendering of services.

Companies which have implemented the new standards for revenue

The Company's subsidiaries China Power International Development Limited, SPIC Pacific Energy Pty Ltd and SPIC Brazil Energia Participaçoes S.A. have implemented the New Standards for Revenue as of January 1, 2018 upon the resolution of the board of directors, while the Company's subsidiaries Shanghai Electric Power Co., Ltd., State

Power Investment Corporation Yuanda Environmental Protection Co., Ltd., Jilin Electric Power Co., Ltd., Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia, SPIC Dongfang New Energy Corporation, SPIC Xianrong Futures Co., Ltd., and SPIC Guizhou Jinyuan Weining Energy Co., Ltd. have implemented the New Standards for Revenue as of January 1, 2020 upon resolution of the board of directors. The accounting policies implemented by the above companies are as follows:

Accounting policies adopted for revenue recognition and measurement

If the Company fulfills its performance obligations in a contract, it will recognize revenue when relevant customer obtains right of control over relevant goods or services. Obtaining the right of control over relevant goods or services means that the customer is able to make decisions on the use of the goods or the rendering of the services, and can obtain almost all of the economic benefits therefrom.

If two or more performance obligations are covered in the contract, on the contract commencement date, the transaction price will be amortized to individual performance obligation based on the relative proportion of the individual selling price of goods or services involved in the individual performance obligation. The Company measures revenue at the transaction price amortized to individual performance obligation.

The transaction price refers to the amount of consideration the Company is expected to have the right to take on account of the transfer of goods or services to the customer, excluding the payments charged by any third party and the payments expected to be refunded to the customer. The Company determines the transaction price according to the contract terms and in light of its previous regular practice, in the meantime, factors such as variable consideration, significant financing composition existing in the contract, non-cash consideration, and consideration payable to customers will be taken into account. The Company determines the transaction price involving the variable consideration at the amount that should not exceed the amount of accumulatively recognized revenue that is highly unlikely to have a major reversal when relevant uncertainty is eliminated. If the significant financing component in covered in the contract, the Company will determine the transaction price based on the amount of cash payable at once by the customer when the customer acquires the right of control over goods or services, as assumed, and amortize the difference between such transaction price and the contract price by the effective interest method during the contract period.

The obligation performance belongs to certain period in case one of the following conditions is met; otherwise, it belongs to certain time-point:

- The customer obtains and consumes the economic benefits brought by the performance of the Company while the Company is performing the obligation.

- Customers are able to control the goods under construction by the Company in the course of performing obligations.

- The Goods produced in the course of performing obligations have irreplaceable uses, and the Company has the right to receive payments for the portion of the performance that has been completed to date.

For a performance obligation to be performed within a certain period, the Company recognizes the revenue according to the performance progress during such period, except for the case that the performance progress cannot be reasonably determined. The Company may determine the performance progress by the output method or input method based on the nature of goods or service. When the performance progress cannot be reasonably determined, if the cost incurred is expected to be compensated, the revenue will be recognized by the Company at the amount of the cost incurred until the performance progress can be reasonably determined.

The revenue from obligation performance belonging to certain time-point is recognized by the Company when the customer has acquired the right of control over relevant goods or services. The Company will consider the following signs when judging whether the customer has acquired the right of control over relevant goods or services:

- The customer has the current payment obligation for such goods or service, i.e. the Company enjoys the current right to collect the payment for such goods or service.

- The Company has transferred the legal ownership of such goods to the customer, i.e. the customer possesses the legal ownership of such goods.

- The Company has transferred goods to the customer in kind, i.e. the customer has possessed such goods in kind.

- The substantial risks and rewards of the ownership of such goods have been transferred by the Company to the customer, i.e. the customer has acquired the substantial risks and rewards of the ownership of such goods.

- The customer has accepted such goods or services.

4.28 Construction contract

4.28.1 Revenues from construction contracts, including the following contents

(1) Initial revenues specified in these contracts; and

(2) Revenues from contract changes, claims and awards.

4.28.2 Recognition of revenues from contracts

(1) The revenue from contract change can be recognized only when such change meets the following conditions at the same time:

1) Relevant customer recognizes the revenue from such change; and

2) Such revenue can be measured reliably.

(2) The revenue from claim payment can be recognized only when the following conditions can be met at the same time:

1) According to the negotiation situation, it is estimated that the counterparty may agree with such claim; and

2) The amount of claim payment acceptable by the counterparty can be measured reliably.

(3) The revenue from rewards can be recognized only when the following conditions can be met at the same time:

1) According to the current contract completion progress, it is enough to judge that the construction progress and quality can meet or even exceed the specified standard; and

2) The reward amount can be measured reliably.

4.28.3 Recognition of contract costs

Contract costs include the direct and indirect expenses incurred during the period from the execution of contract to the completion of contract and relevant to the implementation of contract.

The direct expenses are directly included in the contract costs at occurrence, while indirectly expenses are included in contract costs through the amortization made by the systematic and reasonable method on the balance sheet date.

After the contract completion, the income from disposal of residual materials and the sporadic income relevant to the contract are used to offset the contract cost.

Contract costs exclude the general and administrative expenses and selling expenses, selling and distribution expenses and financial expenses included in the current profit or loss. Expenses relevant to the conclusion of contract are directly included in the current profit or loss.

4.28.4 Recognition of contract revenues and contract expenses

At the end of the period, if the outcome of any construction contract can be estimated reliably, the Company will recognize relevant contract revenue and expense by the percentage-of-completion method on the balance sheet date. If the outcome of the construction contract cannot be reliably estimated, and the contract cost is recoverable, the contract revenue will be recognized based on the actual recoverable contract cost and recognized as the contract expense during the period when it is incurred; if the outcome of the construction contract cannot be reliably estimated, but the contract cost is irrecoverable, the contract cost will be recognized as a contract expense at occurrence and will not be recognized as a contract revenue.

4.28.5 Method for determining the contract completion progress

The Company's contract completion progress is determined based on the proportion of the actually incurred contract cost in the total estimated contract cost.

4.28.6 Recognition of and provision for estimated contract losses

For contracts where constructions are in progress, the Company makes the impairment test at the end of period. When the total estimated contract cost of any construction contract exceeds the total contract revenue, the estimated contract loss may generate, the provision therefor will be made, and such loss will be recognized as the current expense. At the completion of a contract, the provision for loss made should be used to offset the contract expense.

4.29 Contract costs

Companies which have implemented the new standards for revenue

The Company's subsidiaries China Power International Development Limited, SPIC Pacific Energy Pty Ltd and SPIC Brazil Energia Participaçoes S.A. have implemented the New Standards for Revenue as of January 1, 2018 upon the resolution of the board of directors, while the Company's subsidiaries Shanghai Electric Power Co., Ltd., State Power Investment Corporation Yuanda Environmental Protection Co., Ltd., Jilin Electric Power Co., Ltd., Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia, SPIC Dongfang New Energy Corporation, SPIC Xianrong Futures Co., Ltd., and SPIC Guizhou Jinyuan Weining Energy Co., Ltd. have implemented the New Standards for Revenue as of January 1, 2020 upon resolution of the board of directors. The accounting policies implemented by the above companies are as follows:

Contract costs include the contract performance cost and the contract acquisition cost.

The Company's cost on contract performance is recognized as an asset when it meets the following conditions:

1. Such cost is directly relevant to the contract which has been or is expected to be acquired.

2. Such cost increases the resource which will be used by the Company for obligation performance.

3. Such cost is expected to be recoverable.

If the incremental cost incurred in the Company on account of contract acquisition is expected to be recoverable, it, as the contract acquisition cost, will be recognized as an asset.

Assets related to contract cost are amortized on the basis for the recognition of revenue from goods or services relevant to such assets; however, if the amortization period of contract acquisition cost is less than one year, the Company will include such cost in the current profit or loss when it occurs.

If the book value of the assets related to contract cost is higher than the difference between the following two items, the Company will make the provision for impairment of the exceeding part, and recognize it as the loss from asset impairment:

1. The remaining consideration expected to be obtained on account of the transfer of goods or services related to the assets;

2. The cost that is expected to be incurred for the purpose of transferring relevant goods or services.

In case the above-mentioned provision for asset impairment is reversed subsequently, the book value of reversed assets should not exceed the book value of such assets under the assumption that no provision for asset impairment has been made.

4.30 Government grants

4.30.1 Classification of government grants

Government grants are monetary assets and non-monetary assets freely obtained by the Company from the government, which are classified into the asset-related government grants and the income-related government grants.

Asset-related government grants are government grants that the enterprise acquires for acquisition, construction or otherwise form long-term assets. Income-related government grants refer to government grants other than asset-related government grants.

4.30.2 Measurement and derecognition of government grants

Government grants are recognized when the Company can meet the conditions for the government grants and can obtain the grants.

Government grants in the form of monetary assets are measured at the amount received or receivable. The government grants in the form of non-monetary assets are measured at fair value, or at the nominal value if the fair value cannot be reliably obtained.

Asset-related government grants are used to offset the book value of relevant assets or recognized as deferred income. If such grants are recognized as the deferred income, they will be included in the current profit or loss by reasonable and systematic methods within useful lives of related assets (if such grants are relevant to routine activities of the Company, they will be included in other income; if such grants are irrelevant to routine activities of the Company, they will be included in non-operating revenue). If relevant assets are sold, transferred, scraped or damaged before the end of their useful lives, the balance of the unallocated deferred income will be transferred to the profit or loss for the period of assets disposal.

Income-related government grants used to compensate for relevant costs or losses which will occur in the following period in the Company are recognized as the deferred income, and, during the period when relevant costs or losses are recognized, are included in the current profit or loss (if income-related government grants are relevant to routine activities of the Company, they will be included in the other income; if income-related government grants are irrelevant to routine activities of the Company, they will be included in the non-operating revenue) or used to offset relevant costs or losses; income-related government grants used to compensate for relevant costs or losses incurred in the Company are included in the current profit or loss (if income-related government grants are relevant to routine activities of the Company, they will be included in the other income; if income-related government grants are irrelevant to routine activities of the Company, they will be included in the non-operating revenue) or used to offset relevant costs or losses.

Government grants measured at nominal amount are directly included in the current profit or loss.

The interest subsidies for policy-based preferential loans obtained by the Company shall be subject to the following accounting treatments based on two kinds of situations:

(1) Where the finance department appropriates the interest subsidies to the lending bank, and the lending bank provides the loan at the policy-based preferential interest rate to the Company, the Company will take the book-entry value at the loan amount actually received, and relevant loan expenses are calculated based on the principal of the loan and the policy-based preferential interest rate.

(2) Where the finance department directly appropriates the interest subsidies to the Company, the Company will use the corresponding interest subsidies to offset related borrowing costs.

4.30.3 Accounting treatment for the refund of government grants

If any government grants recognized need to be refunded, during the period when they need to be refunded, the Company will:

(I) Adjust the book value of the government grants to be refunded when the book value of relevant assets is offset upon initial recognition;

(II) Write down the book balance of relevant deferred income with such government grants when relevant deferred income exists, and include the remaining part in the current profit or loss;

(III) Directly include such government grants in the current profit or loss for other circumstances.

4.31 Deferred income tax assets and deferred income tax liabilities

Income tax includes the current income tax and deferred income tax. Except for the income tax in the transactions or matters of business combination and directly including relevant items in the owners' equity (including other comprehensive income), the Company includes the current income tax and deferred income tax in the current profit or loss.

The deferred income tax assets and deferred income tax liabilities are calculated and recognized based on the differences (temporary differences) between the tax bases of assets and liabilities and the book values of the same.

Deferred income tax assets are recognized at deductible temporary differences to the extent that it shall not exceed the taxable income probably obtained in future period and used to deduct the deductible temporary differences. For deductible losses and tax credits that can be carried forward to subsequent periods, deferred income tax assets arising therefrom are recognized to the extent of the taxable income probably obtained in future period that can be used for deducting the deductible losses and tax credits.

Taxable temporary differences are recognized as deferred income tax liabilities except in special circumstances.

Special situations where the deferred income tax assets or deferred income tax liabilities are not recognized include:

- Initial recognition of goodwill;

- Transactions or matters that neither belong to the business combination nor affect the accounting profit and taxable income (or deductible loss) when they occur.

Taxable temporary differences related to investments in subsidiaries, associates and joint ventures are recognized as deferred income tax liabilities; unless the Company is able to control the time for reversing such temporary differences and such temporary differences are unlikely to be reversed in the foreseeable future. For the deductible temporary differences related to investments in subsidiaries, associates and joint ventures, the deferred income tax assets are recognized when the temporary differences may be reversed in the foreseeable future and they are likely to be obtained to offset the taxable income of deductible temporary differences in the future.

On the balance sheet date, the deferred income tax assets and deferred income tax liabilities are measured at the tax rates applicable to the period where relevant assets are expected to be recovered or relevant liabilities are expected to be discharged, according to the tax law.

On the balance sheet date, the Company reviews the book value of deferred income tax assets. If it is unlikely to obtain sufficient taxable income in the future to offset against the benefit of deferred income tax assets, the book value of deferred income tax assets will be written down. If it is likely to obtain sufficient taxable income, the book value of deferred tax assets written down will be recovered.

If the Company has the legal right to settle in net amounts and intends to settle in net amount or to obtain assets and discharge liabilities simultaneously, the current tax assets and current tax liabilities of the Company shall be presented based on the net amount after offset.

On the balance sheet date, deferred income tax assets and deferred income tax liabilities simultaneously meeting the following conditions are presented by net amount after offset:

- The taxpayer has the legal right to settle the current income tax assets and current income tax liabilities by net amount;

Deferred income tax assets and deferred income tax liabilities are related to the income tax which are imposed on the same taxpayer by the same tax collection authority or to different taxpayers, but, in each important future period in connection with the reversal of deferred income tax assets and liabilities, the involved taxpayers intend to settle the current income tax assets and current income tax liabilities with net amount or to obtain assets and discharge liabilities simultaneously.

4.32 Leases

Companies which have not implemented the new standards for lease

The Company recognizes the lease where almost all risks and rewards relevant to the ownership of assets have been substantially transferred (no matter whether the said ownership has been transferred finally) as the finance lease, and recognizes other leases than the finance lease as the operating lease.

4.32.1 Accounting treatment of operating lease

(1) Lease fees paid by the Company for leased asset are amortized by the straight-line method over the whole lease term (including the rent-free period), and included in the period charges. Initial direct costs related to lease transactions paid by the Company are included in the period charges.
When assets leaser bears the lease-related expenses which shall be borne by the Company, the Company should deduct such expenses from the total rents and amortize the rents after deduction over the lease term and include them in the period charges.

(2) Lease fees received by the Company from leasing assets are amortized by the straight-line method over the whole lease period (including rent-free period), and recognized as the lease income. Initial direct costs related to lease transactions paid by the Company are included in the period charges; if the amount thereof is large, they will be capitalized, and included in the current income by stages within the whole lease term on same basis for recognition of lease income.
When the Company has borne the costs related to the lease which shall be borne by the leasee, the Company should deduct the part of expenses from the total rents and amortize the rents after deduction over the lease term.

Assets leased out under the operating lease are included in relevant items in the balance sheet by the nature thereof. The provision for depreciation of fixed assets leased out under the operating lease is made according to the Company's policy for the depreciation of similar assets; assets leased out under other leases are amortized by systematic and reasonable methods.

4.32.2 Judgment criteria and accounting treatment of finance lease

(1) A lease satisfying the following one criterion or more is recognized as a finance lease:

- The ownership of the leased asset has been transferred to the lessee when the lease term expires;
- The lessee has the option to buy the leased asset, and the price is expected to be far lower than the fair value of the leased asset at the time of executing the option; thus, on the commencement date of the lease, it can be reasonably determined that this option will be exercised;
- Even through the ownership of the asset will not be transferred, the lease term covers the majority of the useful life of the lease asset;
- The present value of the lessee's minimum lease payment on the commencement date of the lease is almost equivalent to the fair value of the leased asset on the same date; The present value of the leaser's minimum lease receipt on the commencement date of the lease is almost equivalent to the fair value of the leased asset on that day;

- The leased assets are of special nature and can only be used by the leasee unless any significant modification is made thereto.

(2) Assets acquired under the finance lease: On the lease commencement date, the entry value of the leased asset is recognized at the lower between the fair value of the leased asset or the present value of the minimum lease payment, while the entry value of the long-term payables is recognized at the minimum lease payment. The difference between the aforesaid book values is recognized as the unrecognized finance charges. The Company amortizes the unrecognized finance charges by the effective interest method during the lease term, and includes the amortized amount in the financial expenses. The initial direct expenses on the Company are included in the value of leased asset.

(3) Assets leased out under the finance lease: On the lease commencement date, the Company recognizes the difference between the sum of finance lease payment receivable and unguaranteed residual value and the present value of the assets as unrealized finance income and as finance income in each period of future lease. The Company's initial direct expenses related to lease are included in the initial measurement of finance lease payment receivable, and the income recognized in lease term is decreased accordingly.

Companies which have implemented the new standards for lease

The Company's subsidiaries China Power International Development Limited, SPIC Pacific Energy Pty Ltd and SPIC Brazil Energia Participaçoes S.A. have implemented the New Standards for Lease as of January 1, 2019 upon the resolution of the board of directors. The accounting policies implemented by the above companies are as follows:

Lease refers to a contract where the leaser transfers the asset use right to the leasee for a certain period to get relevant consideration. On the commencement date of a contract, the Company evaluates whether the contract is concluded for lease or involved with lease. If any party to a contract has exchanged the right to control the use of one or more identified assets within a certain period for consideration, the contract is concluded for lease or involved with lease.

If the contract is involved with several individual leases at the same time, the lessee and leaser will divide the contract and carry out the accounting treatment for lease individually. If the contract includes both the lease part and non-lease part, the leasee and the leaser will separate the lease part from the non-lease part.

4.32.3 The Company acts as the leasee

(1) Right-of-use assets

On the commencement date of the lease term, the Company recognizes leases other than short-term lease and low-value asset lease as the right-of-use assets. Right-of-use assets are initially measured at cost. Such cost includes:

- Initially measured amount of lease liabilities;
- Lease payment amount on or before the commencement date of the lease term, or the balance of such amount less the amount relevant to the enjoyed lease incentive, if any;
- Initially direct expense incurred in the Company;

- The cost expected to incur in the Company for the purpose of disassembling and removing the leased assets, restoring the location of the leased assets or restoring the leased assets to the status specified in the lease clauses. The Company recognizes and measures such cost according to the recognition criteria and measurement method specified in "Note 4.25 Estimated liabilities". Where such cost is incurred from the production of inventories, it should be included in the cost of inventories.

The Company makes the provision for depreciation of right-of-use assets by the straight-line method. Where the Company can reasonably determine that the ownership of the leased assets can be obtained by the end of the lease term, the provision for depreciation of right-of-use assets should be made over the remaining useful life for the leased assets; otherwise, such provision should be made over the shorter of the lease term or the remaining useful life for the leased assets.

(2) Lease liabilities

On the commencement date of the lease term, the Company recognizes leases other than short-term lease and low-value asset lease as the lease liabilities. The lease liabilities are initially measured at the present value of unpaid lease payment. The lease payment includes:

- Fixed payment (including the actual fixed payment), or the balance of such payment less the amount relevant to lease incentive, if any;
- Variable lease payment depending on certain index or ratio;
- Payment expected to be paid based on the residual value of the guarantee provided by the Company;
- The executive price for buying the option, provided that the Company is reasonably certain that it will exercise the option;
- Payment needs to be paid for executing the lease termination option, provided that it is reflected that the Company will execute the lease termination option;

The Company takes the interest rate implicit in lease as the discount rate, or takes the interest rate for incremental borrowings of the Company as the discount rate if the interest rate implicit in lease cannot be determined reasonably.

The Company calculates the interest expenses for lease liabilities over all periods within the lease term based on the fixed and periodic interest rate, and includes the same in the current profit or loss or the asset-related cost.

Variable lease payment not included in the lease liabilities for measurement is included in the current profit or loss or the asset-related cost when it is actually incurred.

After the commencement date of the lease term, the Company remeasures the lease liabilities at the present value of changed lease payment under the following circumstances:

- The payable amount estimated based on the residual value of the guarantee has changed;

- The index or ratio used for determining the lease payment has changed;
- The Company's assessment results of call potion, renewal option or lease termination option have changed, or the actual execution situation of the renewal option or lease termination option is inconsistent with the original assessment result.

At the remeasurement of lease liabilities, the Company makes the adjustment to the book value of right-of-use assets accordingly. When the book value of right-of-use assets has been reduced to zero, but the lease liabilities still need to be reduced, the Company should include the remaining amount in the current profit or loss.

(3) Short-term lease and low-value asset lease

The Company chooses not to recognize the short-term lease and low-value asset lease as the right-of-use assets and lease liabilities, and includes relevant lease payments in the current profit or loss or asset-related cost by the straight-line method over all periods within the lease term. Short-term lease refers to the lease where the lease term does not exceed 12 months as of the commencement date of lease term and which does not include the call option. Low-value asset lease refers to the lease where the price is low when the individual leased asset is the brand new asset. When the Company subleases or is expected to sublease the leased assets, the original lease will not be the low-value asset lease any more.

(4) Lease changes

Where any lease has changed and meet the following conditions at the same time, the Company should take such lease as an individual lease for accounting treatment:

1) Such lease change has expanded the lease scope by adding one or more rights to the use of leased assets;

2) The added consideration is equal to the amount of adjustment made based on the contract to the separate price for the expended part of the lease.

Where the lease change is taken as an individual lease for accounting treatment, on the effective date of lease change, the Company re-amortizes the contract consideration after change, re-determines the lease term, and remeasures the lease liabilities based on the present value calculated based on the changed lease payment at the revised discount rate.

4.32.4 The Company acts as the leaser

On the lease commencement date, the Company divides leases into the finance lease and operating lease. The finance lease refers to the lease where all risks and rewards related to the ownership of leased assets have been transferred, no matter whether the ownership has been finally transferred. The operating lease refers to other leases than the finance lease. The Company, as the subleaser, classifies subleases based on the right-of-use assets generating from the original leases.

(1) Accounting treatment of operating lease

The lease receipt from operating lease is recognized as the rent revenue by the straight-line method during each period within the lease term. The Company capitalizes the incurred initial direct expense relevant to the operating lease, and amortizes the same on the same basis for rent revenue recognition during the

lease term to include the same in the current profit or loss. Variable lease payment not included in the lease receipt is included in the current profit or loss when it is actually incurred.

(2) Accounting treatment of finance lease

On the lease commencement date, the Company recognizes finance lease receivables finance leases, and derecognizes assets under the finance lease. At the initial measurement of finance lease receivables, the Company takes the net lease investment as the entry value as the finance lease receivables. The net lease investment refers to the sum of the unguaranteed residual value and the present value calculated via discount based on the lease receipt which has not been received on the commencement date of lease term at the interest rate implicit in lease.

The Company determines via calculation the interest income over all periods within the lease term based on the fixed and periodic interest rate. The derecognition and impairment of finance lease receivables are subject to the accounting treatment specified in "Note 4.9 Financial instruments".

Variable lease payment not included in the net lease investment for measurement is included in the current profit or loss when it is actually incurred.

4.32.5 Leaseback

The Company determines via assessment whether the assets transfer under leaseback belongs to sales according to the principle specified in "Note 4.27 Revenue".

(1) Acting as the leasee

If the assets transfer under leaseback belongs to sales, the Company, as the leasee, will measure the right-of-use assets arising from leaseback based on the part relevant to the use right acquired via leaseback in the book value of the original assets, and recognize relevant gain or loss only regarding the right transferred to the leaser; if the assets transfer under leaseback does not belong to sales, the Company, as the leasee, will continue to recognize the transferred assets, and will recognize a financial liability equal to the transfer revenue at the same time. For the accounting treatment of financial liabilities, see "Note 4.9 Financial instruments".

(2) Acting as the leaser

If the assets transfer under leaseback belongs to sales, the Company, as the leaser, will carry out the accounting treatment for assets purchase, and make the accounting treatment for assets lease-out according to "2. The Company acts as the leaser" mentioned above; if the assets transfer under leaseback does not belong to sales, the Company, as the leaser, will not recognize the transferred assets, but will recognize a financial asset equal to the transfer revenue at the same time. For the accounting treatment of financial assets, see "Note 4.9 Financial instruments".

4.33 Assets held for sale

Where the Company recovers the book value of any non-current asset or disposed asset portfolio mainly through selling (including the exchange of non-monetary assets with commercial essence) but not continuously using the same, such non-current asset or disposed asset portfolio shall be divided into assets held for sale.

The Company recognizes non-current assets or disposed asset portfolios meeting the following conditions at the same time as assets held for sale:

(1) According to the general practice for selling such kind of asset or disposed asset portfolio in the similar transaction, the asset or portfolio can be immediately sold in the prevailing circumstance;

(2) The sale of the asset or portfolio is very likely to happen, which means that the Company has made a resolution for one selling plan and has acquired the decided purchase commitment, and it is estimated that the sale will be completed within one year. Where the sale is subject to the approval of relevant authorities or regulatory authorities of the Company according to relevant provisions, the approval has been obtained.

For any non-current asset (excluding financial assets, deferred income tax assets, investment properties with the subsequent measurement made at fair value, biological assets with measurement made by the net amount of fair value less the selling expense, and the assets arising from employee compensation) or disposed asset portfolio classified assets as held for sale, where its book value is higher than the net amount of its fair value less the selling expense, the book value should be written down to the net amount of the fair value less the selling expense, and the amount written down should be recognized as the loss from asset impairment and included in the current profit or loss, while the provision for impairment of assets held for sale is made.

4.34 Discontinued operation

Discontinued operation refers to the component which meets one of the following conditions and can be separately distinguished, moreover such component has been disposed or classified as held for sale by the Company:

(1) The component represents an independent major business or a sole major business area;

(2) The component is a part of a related plan where an independent major business or a sole major business area will be disposed as planned; or

(3) The component is a subsidiary acquired only for re-sale.

Profit or loss from continued operation and profit or loss from discontinued operation are presented in the income statement. Loss from discontinued operation, reversed amount and other profit or loss from operation as well as the profit or loss from disposal are presented as the profit or loss from discontinued operation. For the discontinued operation presented in the current period, the Company present the information which has originally presented as the profit or loss from continued operation as the profit or loss from discontinued operation for the comparable accounting period in the financial statements for the current period.

4.35 Measurement at fair value

The Company measures the relevant assets and liabilities at fair value based on the following assumptions:

- The sales of assets or transfer of liabilities by the market participant on the measurement date belongs to the orderly transaction under the current market conditions;

- Such orderly transaction is carried out in the major market of relevant assets or liabilities. If the major market does not exist, it is assumed that such transaction is carried out in the market most beneficial to relevant assets or liabilities.

- The assumption used by the market participant in order to maximize the benefits at the time of pricing such assets or liabilities.

According to the property of the said transaction and the characteristic of the said assets or liabilities, the Company recognizes the transaction value as the fair value of initial recognition.

If other relevant accounting standards require or permit the Company to conduct initial measurement on the relevant assets or liabilities at the said fair value, and the transaction value is different from the fair value, the Company will include relevant gains or losses in the current profit or loss, unless otherwise specified in other relevant accounting standards.

For the measurement of non-financial assets at fair value, the capability of the market participant in bringing about economic interest via the best use of such assets, or the capability in selling such assets to the other market participant for bringing about economic interest with the best use of such assets should be taken into account.

The valuation techniques which are applicable to the current situation and have sufficient usable data and other information support are taken into account by the Company for the adoption of valuation technique. Relevant observable input values are preferentially adopted for valuation techniques, and the unobservable input values can be used only when the observable input values are unable or unpractical to be obtained.

Input values used in the fair value measurement are divided into three levels:

- Level 1 input values are unadjusted quoted prices in the active market of identical assets or liabilities accessible on the measurement date.

- Level 2 input values refer to input values that are directly or indirectly observable for relevant assets or liabilities, other than Level 1 input values.

- Level 3 input values are unobservable input values for relevant assets or liabilities.

The fair value measurement is categorized in its entirety based on the lowest level where the input values that are significant to the entire measurement stand.

Assets and liabilities measured by the Company at fair value mainly include: investment properties.

4.36 Asset securitization

The Company securitizes the “receivables” and “long-term receivables” in part, and the trust assets to the entity with the specific purpose, and such entity should issue the asset-backed securities to investors. When applying the accounting policies for securitized financial assets, the Company has considered the risk and remuneration transfer degree regarding the assets transferred to other entity, and the degree of control the Company has over such entity;

(1) When the Company has transferred almost all risks and remunerations related to the ownership of the financial assets, it will derecognize such financial assets;

(2) When the Company has reserved almost all risks and remunerations related to the ownership of the financial assets, it will continue to recognize such financial assets;

(3) When the Company has neither transferred nor reserved almost all risks and remunerations related to the ownership of the financial assets, it may consider whether it has the control over such financial assets. If the Company has not reserved the control, it will derecognize such financial assets and recognize the rights and obligations arising from transfer or the same reserved as assets or liabilities respectively. If the Company has reserved the control, it will recognize such financial assets based on the degree of continuous involvement of such financial assets, and recognize relevant liabilities accordingly.

4.37 Expenses on work safety, and maintenance of simple reproduction

According to the *Administrative Measures for the Withdrawal and Use of Work Safety Expenses of Enterprises* (CQ [2012] No. 16) issued by the Ministry of Finance and the State Administration of Work Safety on February 14, 2012, the *Circular on Issuing Several Provisions on Regulating the Management of Expenses on Maintenance of Simple Reproduction of Coal Mine* (CJ [2004] No. 119) issued by the Ministry of Finance, the National Development and Reform Commission and the State Administration of Coal Mine Safety, and the *Circular on Issuing the Administrative Measures for Afforestation Expenses and Woods-raising Funds of Coal Mine Enterprises* (January 31, 1986) issued by the Ministry of Coal Industry and the Ministry of Finance, the expenses on work safety (RMB 5.00 per ton of coal), the expenses on maintenance of simple reproduction (RMB 9.50 per ton of coal) and the afforestation and woods-raising expenses (RMB 0.15 per ton of coal) withdrawn by the Company are separately presented in “Special reserves” under the owners' equity.

At the withdrawal of such expenses as the expenses on work safety according to the Interpretation No. 3 of Accounting Standards for Business Enterprises (CK [2009] No. 8), these expenses should be included in the cost of related products or the current profit or loss, and recognized in "special reserves" at the same time.

Where the use of the withdrawn expenses on work safety belongs to expenses, such expenses on work safety should be used to directly offset the special reserves; if fixed assets generate therefrom, the incurred expenses will be accumulated under the item "construction in progress" and recognized as fixed assets when the safety project is completed and reaches the working conditions for its intended use; meanwhile, special reserves will be offset according to the costs on forming fixed assets, and the accumulated depreciation of the same amount will be recognized. Provision for depreciation of such fixed assets will be no longer made in subsequent periods.

4.38 Other significant accounting policies and accounting estimates

On September 22, 2016, the Ministry of Finance issued the *Provisions on Regulating the Accounting Treatment for the Relevant Business of Addressing Overcapacity, Reducing Inventory, Deleverage, Reducing Costs and Bolstering Areas of Weakness* (CK [2016] No. 17), which should be implemented as of the date of issue, without retroactive adjustment. The above-mentioned provisions have respectively specified the accounting treatments for three kinds of transactions, i.e. “accounting treatment for the free transfer of the shares of subsidiaries within state solely-owned enterprises or state wholly-owned enterprises”, “accounting treatment for "zombie enterprises" to be closed down and cleared” and “Accounting treatment for the special rewards and subsidies for the restructuring of industrial enterprises by central enterprises”, and respectively specified the specific scope of application.

4.38.1 Accounting treatment for the free transfer of the shares of subsidiaries within state solely-owned enterprises or state wholly-owned enterprises (applicable for transferred-out enterprises)

In the work of addressing overcapacity, reducing inventory, deleverage, reducing costs and bolstering areas of weakness, the Company gratuitously transferred out the equity of its original subsidiaries according to relevant provisions stipulated by state-owned assets regulation departments. The Company and transferred-in enterprises are state solely-owned enterprises.

(1) Individual financial statements

As of the date when losing the control over the transferred enterprises, the Company derecognizes the long-term equity investments of these transferred enterprises. Meanwhile, the Company offsets the capital reserves (capital premiums), and offsets the surplus reserves and undistributed profits successively when the capital reserves (capital premiums) are insufficient to offset.

(2) Consolidated financial statements

As of the date when losing the control over the transferred enterprises, the Company derecognizes the assets, liabilities, minority equity and other equity items which have been presented in the consolidated financial statements and are relevant to those transferred enterprises, and offsets capital reserves (capital premiums) with relevant differences and offsets the surplus reserves and undistributed profits successively when the capital reserves (capital premiums) are insufficient to offset. Meanwhile, the unrealized internal profits or losses incurred before the transfer of the control between the Company and other transferred enterprises are transferred in capital reserves (capital premiums), and used to offset the surplus reserves and undistributed profits successively when the capital reserves (capital premiums) are insufficient to offset.

4.38.2 Subsidiaries put on the list of "zombie enterprises" to be closed down and cleared

According to relevant provisions stipulated by the government for promoting the resolution of overcapacity, the Company has subsidiaries which should be identified as "zombie enterprises" and put on the list of "zombie enterprises" to be closed down and cleared.

(1) Individual financial statements

The long-term equity investments of the Company in these subsidiaries are measured at the recoverable amount or book value on the balance sheet date, whichever is lower; where the recoverable amount is less than the book value, the difference thereof is included in the losses from asset impairment.

(2) Consolidated financial statements

From the beginning of the period when these subsidiaries are identified as "zombie enterprises", assets are measures at the liquidation value while liabilities are measured at the estimated settlement amount, and relevant difference is included in the non-operating expenses (revenue), without provision for depreciation or amortization of fixed assets and intangible assets. On this basis, the Company includes those subsidiaries in the scope of consolidated financial statements, measures the assets and liabilities of those subsidiaries on the same basis adopted by those subsidiaries, and includes differences between the measured amounts and the amounts of relevant assets, liabilities and goodwill originally reflected in the consolidated financial statements in the current profit or loss.

Where the Company loses the control over any subsidiary as the subsidiary has started the procedures for bankruptcy liquidation and has been handed over to the bankruptcy administrator designated by the court, the Company should cease to include such subsidiary in the scope of consolidated financial statements.

4.38.3 Accounting treatment for the free transfer of the shares of subsidiaries within state solely-owned enterprises or state wholly-owned enterprises (applicable for transferred-in enterprises)

In the work of addressing overcapacity, reducing inventory, deleverage, reducing costs and bolstering areas of weakness, the Company gratuitously obtained the equity of its original subsidiaries according to relevant provisions stipulated by state-owned assets regulation departments. The Company and transferred-out enterprises are state solely-owned enterprises.

(1) Individual financial statements

On the date when obtaining the control over the transferred enterprises, the Company recognizes the long-term equity investments of these transferred enterprises based on relevant amounts specified in the official reply given by state-owned assets regulation departments, and adjusts capital reserves (capital

premiums) at the same time.

(2) Consolidated financial statements

After obtaining the control over transferred enterprises, the Company included those transferred enterprises in the consolidated financial statements.

Various assets and liabilities transferred in the Company are included in the consolidated balance sheet of the Company at the amounts continuously calculated based on the book values determined via audit and approved by state-owned assets regulation departments till the control day, and while the adjustment to capital reserves (capital premiums) are made. The retained earnings realized by transferred enterprises from the base day approved by relevant state-owned assets regulation department to the day when the control is transferred should be transferred from capital reserves to retained earnings to the extent that the amount transferred is equal to the credit balance of the Company's capital reserves (capital premiums).

The amounts of net profit, cash flows and changes in owners' equity incurred in those transferred enterprises at the end of the period from the base day approved by relevant state-owned assets regulation department to the day when the control is transferred should be reflected in the consolidated income statement, consolidated statement of cash flows and consolidated statement of changes in owners' equity for the period when the Company obtains the control over those transferred enterprises.

4.38.4 Associates (joint ventures) put on the list of "zombie enterprises" to be closed down and cleared

According to relevant provisions stipulated by the government for promoting the resolution of overcapacity, the Company has associates (joint ventures) which should be identified as "zombie enterprises" and put on the list of "zombie enterprises" to be closed down and cleared. The long-term equity investments of the Company in these "zombie enterprises" are measured at the recoverable amount or book value, whichever is lower; where the recoverable amount is less than the book value, the difference thereof is included in the losses from asset impairment.

4.38.5 Special rewards and subsidies for the restructuring of industrial enterprises

As the Company acquired the special rewards and subsidies for the restructuring of industrial enterprises according to the *Circular of the Ministry of Finance on Issuing the Administrative Measures for Special Rewards and Subsidies for the Restructuring of Industrial Enterprises* (CJ [2018] No. 462), it provisionally recognized the special payables at the time when it acquired the special rewards and subsidies allocated in advance. When the Company carries out relevant work of capacity resolution as required, if the Company is able to reasonably and reliably determine the amounts of special rewards and subsidies obtained from task completion according to the calculation standard stipulated in the document (CJ [2018] No. 462), it should include these amounts in the current profit or loss, and offset the special payables at the same time; if not, after the inspection and liquidation carried out by the Ministry of Finance, the Company should include relevant liquidated amounts in the current profit or loss and offset the special payables at the same time. Where the special rewards and subsidies allocated in advance are less than the amounts the Company is expected to enjoy, the insufficient part should be recognized as other receivables; where the Company should pay some capital to the Ministry of Finance as required as it fails to complete relevant task, the amount of capital paid should be used for offset the special payables.

5 Notes to changes in accounting policies and accounting estimates, corrections of accounting errors and other adjustments

5.1 Changes in accounting policies

5.1.1 Implement the *Accounting Standards for Business Enterprises No. 14 - Revenue* (Revised in 2017)

The Ministry of Finance revised the *Accounting Standards for Business Enterprises No. 14 - Revenue* revised in 2017. For the initial implementation of the revised standards, the retained earnings at the beginning of the current year and the amounts of other relevant items in the financial statements should be adjusted based on the cumulatively affected amount, without adjustment to the information in the comparable period.

Enterprises covered in the Group's scope of consolidation and implementing the New Standards for Revenue as of January 1, 2020:

No.	Company name	Reason for implementation
1	Shanghai Electric Power Co., Ltd.	Domestic listed company
2	SPIC Yuanda Environmental Protection Co., Ltd.	Domestic listed company
3	SPIC Dongfang New Energy Corporation	Domestic listed company
4	Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia	Domestic listed company
5	Jilin Electric Power Co., Ltd.	Domestic listed company
6	SPIC Xianrong Futures Co., Ltd.	NEEQ company
7	SPIC Guizhou Jinyuan Weining Energy Co., Ltd.	NEEQ company

Impacts of the implementation by the above companies of the New Standards for Revenue on the Group's consolidated financial statements mainly are:

Content of and reason for changes in accounting policies	Procedures for examination and approval	Affected items	Affected amount of balance as at January 1, 2020
(1) As some project construction contracts where revenues had been recognized by the percentage-of-completion method failed to meet the conditions for revenue recognition in a certain period, the revenue recognition was made at the time for the transfer of control.		Inventories	32,876,477.96
		Accounts receivable	-13,010,984.79
		Deferred income tax assets	4,060,158.15
		Undistributed profits	-14,195,470.45
		Advances from customers	-49,486,442.63
		Accounts payable	49,695,358.40
		Contract liabilities	30,580,075.55
		Other current liabilities	24,675,324.71
		Minority equity	-17,343,194.26
(2) The completed but not settled contract assets and accounts receivable which are relevant to the contact for project construction but unqualified for the unconditional right of collection are reclassified into contract assets, while the amount prepaid before project completion relevant to the contract for project construction and the advances from customers relevant to project construction and sales of electric and heat power are reclassified into contract liabilities.		Accounts receivable	-669,337,241.90
		Inventories	-5,296,322.26
		Contract assets	674,633,564.16
		Advances from customers	-1,254,644,109.55
		Contract liabilities	1,052,918,894.60
		Other current liabilities	53,911,664.68
		Other non-current liabilities	147,813,550.27

5.1.2 Implement the *Interpretation No.13 of Accounting Standards for Business Enterprises*

The Ministry of Finance issued the *Interpretation No.13 of Accounting Standards for Business Enterprises* (CK [2019] No. 21) (hereinafter referred to as "Interpretation No.13") on December 10, 2019 for the implementation as of January 1, 2020, not requiring the retroactive adjustment.

① Affirmation of related parties

The Interpretation No.13 has specified the related-party relationship: between an enterprise and the joint ventures or associates of other member units (including the parent company and subsidiaries) of the enterprise group where the enterprise belongs; between the enterprise's joint venture and other joint venture or associate of the enterprise. In addition, the Interpretation No.13 has pointed out that two or more enterprises under the significant impact of the same party are not related parties, and that associates include associates and their subsidiaries and joint ventures include joint ventures and their subsidiaries.

② Definition of business

The Interpretation No.13 has perfected three elements for business composition, refined the judging conditions on business composition, and introduced the option of "concentration test", so as to simplify to some extent the judgment on whether the business combination not under common control constitutes business, and other questions.

The Company has implemented the Interpretation No.13 as of January 1, 2020, for which the comparative financial statements are not adjusted. The implementation of Interpretation No.13 does not have the significant impact on the Company's financial position and operating results.

5.1.3 Implement the *Interim Provisions on Accounting Treatment for Carbon Emissions Trading*

On December 16, 2019, the Ministry of Finance issued the *Interim Provisions on Accounting Treatment for Carbon Emissions Trading* (CK [2019] No. 22), which applies to relevant enterprises among the key emission units carrying out carbon emissions trading according to the *Interim Measures for Carbon Emissions Trading Administration* (hereinafter referred to as "Key Emission Enterprises"). The Provisions shall be implemented as of January 1, 2020, and Key Emission Enterprises shall apply the Provisions by the prospective application method.

The Company has implemented the Provisions as of January 1, 2020, for which the comparative financial statements are not adjusted. The implementation of the Provisions does not have the significant impact on the Company's financial position and operating results.

5.1.4 Implement the *Provision on the Accounting Treatment of Relevant Rent Reduction due to the Outbreak of COVID-19*

The Ministry of Finance issued the Provisions on *Accounting Treatment of Relevant Rent Reduction due to the Outbreak of COVID-19* (CK [2020] No. 10) on June 19, 2020 for implementation as of June 19, 2020, allowing enterprises to make adjustment to the reduction of relevant rents incurred during the period from January 1, 2020 to the date of implementing such provisions. According to the above-mentioned provisions, enterprises may choose the simplified method to make the accounting treatment for such qualified rent reduction as rent remission and deferred rent payment which are directly caused by the Outbreak of COVID-19.

The Company's implementation of the Provisions does not have the significant impact on the Company's financial position and operating results.

5.2 Changes in accounting estimates

There was no change in significant accounting estimates of the Company during the reporting period.

5.3 Correction of significant accounting errors in prior periods

5.3.1 Nature of the significant accounting errors in prior periods

(1) Huanghe Hydroelectric Development Co., Ltd., a subsidy of the Company, introduced the strategic investor. In November 2019, the premium from purchase of land assets from the subsidy offset the capital reserves of RMB 279,217,700.00, and the deferred income tax assets derecognized amounted to RMB 41,882,700.00. As the procedures for change of title of land use right cannot be gone through, relevant transaction amounts were reversed, by which other current assets were increased by RMB 62.14 million, deferred income tax assets were decreased by RMB 41,882,700.00, capital reserves were decreased by RMB 77,611,200.00, undistributed profits were increased by RMB 18,527,900.00 and minority equity was increased by RMB 79,340,600.00; moreover, the net profit attributable to the parent company for the last year was increased by RMB 18,527,900.00 and the minority interest income for the last year was increased by RMB 1,729,500.00.

(2) China Power (Fujian) Power Development Co., Ltd. (hereinafter referred to as "Fujian Power"), a subsidiary of the Company, signed an agreement on equity transfer with its original shareholder in September 2013 to purchase 100% of equity of Yingjiang Hongfu Industrial Co., Ltd. and Yingjiang Huimin Hydroelectric Development Co., Ltd. (hereinafter referred to as "Yingjiang Companies") with the purchase consideration of RMB 326.66 million. In the course of performing the agreement, due to the original shareholder's failure in honest disclosure of information and implementation of commitments, disputes over the equity transfer payment that should be paid subsequently and the borrowings which should be repaid to the original shareholder were provoked between the parties to the agreement; as at January 1, 2020, Fujian Power had paid the equity transfer payment of RMB 230,245,500.00, remaining RMB 96,414,500.00 of equity transfer payment unpaid. On June 4, 2020, Fujian Power signed the "agreement on package solution" with the original shareholder regarding the false matter of purchasing assets of Yingjiang Companies, and made the final settlement for completed project regarding assets of Yingjiang Companies. According to the Audit Report on Final Settlement of Completed Project issued by Baker Tilly China, the Company adjusted the beginning amounts. Yingjiang Companies adjusted the impact on beginning amounts to decrease the originally and falsely presented receivables from the original shareholder at the beginning of the period by RMB 12,933,000.00, the fixed assets at the beginning of the period by RMB 47,991,400.00, the undistributed profits at the beginning of the period by RMB 37,291,900.00 and the minority equity at the beginning of the period by RMB 23,632,600.00.

(3) SPIC Asset Management Co., Ltd., a subsidiary of the Company, reclassified the unrealized leaseback profits or losses to increase the non-current assets by RMB 8,873,300.00 and long-term payables by RMB 8,873,300.00; SPIC Huaze (Tianjin) Asset Management Co., Ltd. (hereinafter referred to as "Huaze Company"), a subsidiary of the Company, completed the mixed-ownership reform in 2019, by which various taxation affairs involved with such reform were adjusted, decreasing the accrued sum of income tax expenses and taxes and

surcharges payable by RMB 14,782,200.00, increasing the taxes and surcharges payable by RMB 14,782,200.00, decreasing the undistributed profit at the beginning of the current year by RMB 7,878,900.00 and minority equity at the beginning of the current year by RMB 6,903,300.00, and decreasing the net profit attributable to the parent company for the last year by RMB 7,878,900.00 and the minority interest income for the last year by RMB 6,903,300.00.

5.3.2 Affected items and adjusted amounts in the financial statements for the period prior to the presentation

Significant accounting errors in prior periods adopting the retrospective restatement method during the reporting period

No.	Content of correction of accounting errors	Approval and treatment	Name of affected item in the financial statements for each comparison period	Accumulatively affected amount
1	Offset via the purchase of land assets by Huanghe Company		Other current assets	62,140,004.42
			Deferred income tax assets	-41,882,660.87
			Capital reserves	-77,611,158.18
			Undistributed profits	18,527,858.03
			Minority equity	79,340,643.70
2	Decrease in purchased asset value by China Power International Development Limited		Fixed assets	-47,991,421.37
			Other receivables	-12,933,020.40
			Undistributed profits	-37,291,850.81
			Minority equity	-23,632,590.96
3	Increase in enterprise income tax where the accrual has been reduced by the asset management company		Other non-current assets	8,873,251.11
			Taxes and surcharges payable	14,782,236.13
			Long-term payables	8,873,251.11
			Undistributed profits	-7,878,931.86
			Minority equity	-6,903,304.27

6 Taxation

6.1 Major tax types and tax rates

Tax type	Basis of tax assessment	Applicable tax rate (%)
VAT	Levied based on the difference between the output tax (calculated based on the revenue from sales of goods and rendering of services according to tax law) and the deductible input tax for the period	13, 9, 6
	The Group has business where VAT is levied by the simple method without deducting the input VAT	5, 3, 1
	The Group's subsidiaries have the small-scale taxpayers who adopt the simple method for tax collection without deduction of input VAT	5, 3, 1
Resource tax	Levied based on the quantity of aluminum ore mined	RMB 20/ton
	The coal resource tax is levied at relevant price and rate.	5, 6, 9
Urban maintenance and construction tax	Levied based on the VAT and consumption tax actually paid	1, 5, 7

Tax type	Basis of tax assessment	Applicable tax rate (%)
Enterprise income tax	Levied based on taxable income	25

For taxpayers adopting different enterprise income tax rates, the information should be disclosed as follows:

Taxpayer	Income tax rate (%)
SPIC Green Energy Limited	16.5
SPIC Pacific Energy Pty Ltd	30
SPIC Brazil Energia Participaçoes S.A.	34
Pacific Hydro Pty Ltd	30
Pacific Hydro Chile SA	27
Pacific Hydro Energia do Brasil Ltda	34

6.2 Tax preference

6.2.1 Preferential policies for VAT

(1) According to the *Circular on Value-added Tax Policies for Wind Power Generation* (CS [2015] No. 74) issued by the Ministry of Finance and the State Taxation Administration, from July 1, 2015, as for the power products self-produced by the taxpayers through wind power, the VAT policy of refund at 50% upon collection shall apply. Wind power generation enterprises subordinate to the Company may enjoy the above-mentioned preferential tax policy.

(2) According to the *Announcement on Relevant Tax Policies in Support of Prevention and Control of the Pneumonia Outbreak Caused by Novel Coronavirus* (Announcement of the Ministry of Finance and the State Taxation Administration [2020] No. 8), "V. The revenue obtained by taxpayers from the provision of public transportation services and daily life services and from the provision of express delivery services for daily necessities of residents shall be exempt from VAT." Qingtongxia Aluminium Co., Ltd., a subsidiary of the Company enjoyed the policy for VAT exemption in revenue from catering and accommodation in the current year.

(3) According to the *Circular on Renewing the Preferential Policies for Value-added Tax, Real Estate Tax and Urban Land Use Tax for Heat Supply Enterprises* (CS [2019] No. 38) issued by the Ministry of Finance and the State Taxation Administration, in "northwest, north China and northeast regions", the revenue from heating fees charged from individual citizens (hereinafter referred to as "Citizens") by heat supply enterprises during the period from January 1, 2019 to the end of the heating period in 2020 shall be exempt from VAT; heat supply enterprises subordinate to the Company enjoyed the aforesaid policy in the current period.

(4) According to the Circular of the Ministry of Finance and the State Taxation Administration on Issuing the Catalog of Preferential Value-added Tax Policies for Products and Labor Services Generated from the Comprehensive Utilization of Resources (CS [2015] No. 78), the production adopting the rotary kiln method and the production of raw materials, in which the proportion of P.O42.5 cement (including cement clinker) incorporated therein is not less than 20% and the proportions of P.C32.5 and P.C32.5R cement (including cement clinker) are not less than 40%, shall enjoy the VAT policy of immediate refund upon payment. SPIC Guizhou Jinyuan Suiyang Industrial Co., Ltd., a subsidiary of the Company may enjoy the above-mentioned preferential tax policy regarding some products.

(5) According to the notifications on taxation matters given by No. 16 Taxation Office under Xuhui District Branch of Shanghai Municipality Tax Service, State Taxation Administration and No. 10 Taxation under Qingpu District Branch of Shanghai Municipality Tax Service, State Taxation Administration, the projects of "study on the technique principle of underwater laser repair welding of stainless steel weld in nuclear power plant" and "study on leakage detection technology of heat transfer pipe of moisture separator reheater in nuclear power plant" of Shanghai Nuclear Industry Nondestructive Testing Center subordinate to the Company shall be exempt from VAT.

(6) According to the *Circular of the Ministry of Finance on Tax Issues Concerning the Imported Equipment for the Third-generation Nuclear Power Project* (CGS [2013] No. 15), Shandong Nuclear Power Company Ltd., a subsidiary of the Company, paid the tariff and import VAT at 56% of the tax amount payment for the total amount of imported equipment before the completion acceptance of Haiyang Nuclear Power Project (the total amount of imported equipment and accurate tax amount are subject to the amounts finally approved by the General Administration of Customs);

6.2.2 Preferential policies for enterprise income tax

(1) According to Article 27 in the *Law of the People's Republic of China on Enterprise Income Tax* and Article 87 in the implementing regulations thereof, the *Circular on Issues Concerning the Implementation of the Catalogue of Preferential Policies for Enterprise Income Tax on Public Infrastructure Projects* (CS [2008] No. 46) (*Circular of the State Taxation Administration on Issues Concerning the Implementation of the Preferential Policies for Enterprise Income Tax for Public Infrastructure Projects Supported by the State* (GSF [2009] No. 80)), the *Circular of the Ministry of Finance and the State Taxation Administration on Issues Concerning the Preferential Policies for Enterprise Income Tax on Public Infrastructure Projects and Projects of Environmental Protection, Energy Saving and Water Conservation* (CS [2012] No. 10), and the *Supplementary Circular of the Ministry of Finance and the State Taxation Administration on Issues Concerning the Application of Preferential Policies for Enterprise Income Tax on Public Infrastructure Projects* (CS [2014] No. 55), as for the revenue from investments in projects specified in the *Catalogue of Preferential Policies for Enterprise Income Tax on Public Infrastructure Projects* (CS [2008] No. 116), from the tax year where relevant project gains revenue from the first batch of production management, the enterprise income tax shall be exempt for the first three years, and shall be half-reduced from the fourth year to the sixth year. Revenues from the photovoltaic power generation companies (projects), wind power companies (projects), projects of environmental protection, energy saving and water conservation, which are subordinate to the Company, may enjoy the above-mentioned preferential tax policies.

(2) According to the *Circular of the State Council on Implementing Several Policies on the Development of Western China* (GF [2000] No. 33), the *Circular of the Ministry of Finance, the General Administration of Customs and the State Taxation Administration on Issues Concerning Tax Policies for the In-depth Implementation of Strategies for the Development of Western China* (CS [2011] No. 58), and *the Announcement on Renewing the Enterprise Income Tax Policy for the Development of Western China* (Announcement of the Ministry of Finance, the *State Taxation Administration, and the National Development and Reform Commission* [2020] No. 23) as well as relevant documents issued by all

local tax bureaus, the Company's subsidiaries in Western China may enjoy the aforesaid preferential policies for the development of Western China, by which the enterprise income tax rate applicable to these subsidiaries was 15% in 2020.

(3) According to the *Circular of the Ministry of Finance and the State Taxation Administration on Issues Concerning Implementing the Catalogue of Preferential Policies for Enterprise Income Tax on Comprehensive Utilization of Resources* (CS [2008] No. 47), I. revenues gained by an enterprise from the production of products presented in the *Catalogue* and meeting national or industrial standards with resources listed in the *Catalogue* as major raw materials from January 1, 2008 shall be counted into the total revenues at 90% when calculating the taxable income. Revenues from the comprehensive utilization of resources by intelligent energy companies subordinate to the Company may enjoy the above-mentioned preferential tax policy.

(4) According to the *Circular of the Ministry of Finance and the State Taxation Administration on Issues Concerning the Policies for VAT, Business Tax and Enterprise Income Tax on Accelerating the Development of the Energy-saving Service Industry* (CS [2010] No. 110), the *Circular of the Ministry of Finance and the State Taxation Administration on the Inclusion of the Railway Transport Industry and Postal Service Industry in the Pilot Collection of Value-added Tax in Lieu of Business Tax* (CS [2013] No. 106), and the *Circular of the Ministry of Finance and the State Taxation Administration on Comprehensively Promoting the Pilot Program of the Collection of Value-added Tax in Lieu of Business Tax* (CS [2016] No. 36), the revenue from transferring goods taxable for VAT in relevant projects to energy-consuming enterprises shall be temporarily exempted from VAT; from the tax year where the project gains revenue from the first batch of production management, enterprise income tax shall be exempted for the first three years, and shall be paid based on the half of taxable income at the statutory tax rate of 25% from the fourth year to the sixth year. SPIC Power Energy Technology Co., Ltd., a subsidiary of the Company, may enjoy the aforesaid preferential tax policy when it implements the energy performance contracting project, and pay the enterprise income tax by half in 2020.

(5) According to the Circular of the Ministry of Finance and the State Taxation Administration on Implementing the Policy on Inclusive Tax Reliefs for Small and Micro Enterprises (CS [2019] No. 13), the following preferential tax policy shall be applicable. For small low-profit enterprises, the portion of less than RMB 1 million, and the portion of more than RMB 1 million but less than RMB 3 million, of the annual taxable income, will be included in the actual taxable income at 25% and 50% respectively, by which the enterprise income tax payable will be calculated at the reduced tax rate of 20%. The Company’s subsidiaries including Beijing Huatsing Gas Turbine & IGCC Technology Co., Ltd., Power (Beijing) Certification Centre Co., Ltd., Jiangxi Zhongye Xingda Security Service Co., Ltd., SPIC Jiangxi Energy Sales Co., Ltd., Qinghai Huanghe Electric Power Operation Co., Ltd., Qinghai Huanghe Photovoltaic Maintenance and Inspection Co., Ltd., Qinghai Chip Testing Technology Co., Ltd., Jiangxi Ganjiang New District Integrated Smart Energy Co., Ltd., Liangneng Electricity Distribution and Beijing New Energy were recognized as small and low-profit enterprises in 2020, and enjoyed the above-mentioned preferential tax policy.

(6) According to the *Circular of the Ministry of Finance and the State Taxation Administration on Preferential Policies for Enterprise Income Tax at Two Special Economic Development Zones in Khorgos and Kashi* (CS [2011] No.

112) and the *Circular on Perfecting the Catalogue of Preferential Policies for Enterprise Income Tax on Key Industries with Development Encouragement in Difficult Areas in Xinjiang* (CS [2016] No. 85), the 20MW photovoltaic power station project of Yili Xinhui Photovoltaic Power Generation Co., Ltd., a subsidiary of the Company, may enjoy the aforesaid preferential tax policy, and the revenues from investments from 2016 to 2020 shall be exempt from enterprise income tax.

(7) According to the document ([2019] No. 60) jointly issued by the Ministry of Finance, the State Taxation Administration, the National Development and Reform Commission and the Ministry of Ecology and Environment, the qualified third-party enterprises engaging in pollution control shall pay the enterprise income tax at the tax rate of 15%. Henan Jiulong Environmental Protection Co., Ltd., Chaoyang Yuanda Environmental Protection Water Service Co., Ltd. and Lingyuan Yuanda Water Service Co., Ltd., subsidiaries of the Company may enjoy the above-mentioned preferential tax policy, and shall pay the enterprise income tax at a tax rate of 15% from 2020.

(8) According to the *Law of the People's Republic of China on Enterprise Income Tax* and the *Implementing Regulations of the Law of the People's Republic of China on Enterprise Income Tax*, high-tech enterprises where the state should give key support shall pay the enterprise income tax at the tax rate of 15%. The Company's subsidiaries, including SPIC Jiangxi Electric Engineering Co., Ltd., SPIC Yuanda Environmental Protection Equipment Manufacturing Co., Ltd., SPIC Hydrogen Energy Technology Development Co., Ltd., Qinghai Huanghe New Energy Maintenance and Inspection Co., Ltd., Qinghai Huanghe New Energy System Integration Engineering Co., Ltd., SPIC Qinghai Huanghe Electric Power Technology Co., Ltd. and Huanghe Hydropower Photovoltaic Industry Technology Co., Ltd. were recognized as high-tech enterprises in accordance with the *Administrative Measures for the Accreditation of High-tech Enterprises* (GKFH [2016] No. 32) and the *Guidelines for the Administration of Accreditation of High-tech Enterprises* (GKFH [2016] No. 195), by which they may enjoy the aforesaid preferential tax policy and pay the enterprise income tax at the tax rate of 15% for 2020.

6.2.3 Preferential policies for land use tax

(1) Announcement of the Ministry of Finance and the State Taxation Administration on Renewing the Preferential Urban Land Use Tax Policy for the Land Used by Logistics Companies for Bulk Commodity Warehousing Facilities (Announcement of the Ministry of Finance and the State Taxation Administration [2020] No. 16), for the land owned (including self use and lease) leased by logistics companies for bulk commodity warehousing facilities, the urban land use tax shall be levied at 50% of the tax amount applicable to such land level from January 1, 2020 to December 31, 2022. Huanghe Hydropower Materials Co., Ltd., a subsidiary of the Company, may enjoy the above-mentioned preferential tax policy, and shall pay the urban land use tax at 50% of the tax amount applicable to the corresponding land level.

(2) According to Article 6 in the *Circular of the People's Government of Qinghai Province on Issuing the Preferential Policies for Investment Invitation in Xining Economic and Technological Development Zone* (QZ [2001] No. 34), stating that "All types of investment enterprises in the development zone will be exempt from the urban real estate tax, property tax, land use tax, deed tax, educational surtax and urban maintenance and construction tax for five years"; according to the document (QZB [2020] No. 50) and the *Measures for the*

Formulation and Filing of Administrative Normative Documents in Qinghai Province (No. 99 Order of the People's Government of Qinghai Province), the provincial government decided to abolish the *Circular of the People's Government of Qinghai Province on Issuing the Preferential Policies for Investment Invitation in Xining Economic and Technological Development Zone* (QZ [2001] No. 34). The Circular has been implemented as of the date of issue (June 30, 2020). Xining Branch of Qinghai Huanghe Smart Energy Co., Ltd. subordinate to the Company may enjoy the preferential policy of exempting land use tax from January to June in 2020.

(3) According to the *Circular of the Ministry of Finance and the State Taxation Administration on Renewing the Preferential Policies for Value-added Tax, Real Estate Tax and Urban Land Use Tax for Heat Supply Enterprises* (CS [2019] No. 38), from January 1, 2019 to December 31, 2020, for the heat supply enterprises that collect heating costs from residents, the real estate tax and urban land use tax for the plants and land used for supplying heat shall be exempted, while other plants and land of the heat supply enterprises shall be subject to the real estate tax and urban land use tax in accordance with the relevant provisions. Lanzhou New Area Thermal Power Branch Company of Gansu Huanghe Hydropower Co., Ltd. subordinate to the Company may enjoy the above-mentioned preferential tax policy, and its lands used for heat supply to residents shall be exempt from the urban land use tax.

(4) According to the Forwarding the Circular of the Ministry of Finance and the State Taxation Administration on Implementing the Policy on Inclusive Tax Reliefs for Small and Micro Enterprises (JCS [2019] No. 196), from January 1, 2019 to December 31, 2021, small-scale VAT taxpayers shall pay the urban land use tax at 50%. SPIC Qinghai Photovoltaic Industry Innovation Center Co., Ltd., a subsidiary of the Company may enjoy the above-mentioned preferential tax policy, and shall pay the urban land use tax at 50% in 2020.

6.2.4 Preferential policies for house property tax

(1) According to Article 6 in the *Circular of the People's Government of Qinghai Province on Issuing the Preferential Policies for Investment Invitation in Xining Economic and Technological Development Zone* (QZ [2001] No. 34), stating that "All types of investment enterprises in the development zone will be exempt from the urban real estate tax, property tax, land use tax, deed tax, educational surtax and urban maintenance and construction tax for five years"; according to the document (QZB [2020] No. 50) and the *Measures for the Formulation and Filing of Administrative Normative Documents in Qinghai Province* (No. 99 Order of the People's Government of Qinghai Province), the provincial government decided to abolish the *Circular of the People's Government of Qinghai Province on Issuing the Preferential Policies for Investment Invitation in Xining Economic and Technological Development Zone* (QZ [2001] No. 34). The Circular has been implemented as of the date of issue (June 30, 2020). Xining Branch of Qinghai Huanghe Smart Energy Co., Ltd., Qinghai Huangdian Gonghe Photovoltaic Power Generation Co., Ltd. and Qinghai Huangdian Gonghe Solar Power Generation Co., Ltd., subsidiaries of the Company may enjoy the preferential policy of exempting the house property tax from January to June in 2020.

(2) According to Item 4, Article 11 in the *Circular on the Implementing Rules on the In-depth (Trial) Implementation of Opinions on Strategies and Policies for the Development of Western China* (QCS [2015] No. 2073), stating that "any high-tech enterprise may be exempt from the house property tax for five years

from the date when it is recognized as the high-tech enterprise." Huanghe Xinye Co., Ltd., a subsidiary of the Company, may be exempt from the house property tax from November 2018 to October 2023.

(3) According to the *Circular of the Ministry of Finance and the State Taxation Administration on Renewing the Preferential Policies for Value-added Tax, Real Estate Tax and Urban Land Use Tax for Heat Supply Enterprises* (CS [2019] No. 38), from January 1, 2019 to December 31, 2020, for the heat supply enterprises that collect heating costs from residents, the real estate tax and urban land use tax for the plants and land used for supplying heat shall be exempted, while other plants and land of the heat supply enterprises shall be subject to the real estate tax and urban land use tax in accordance with the relevant provisions. Lanzhou New Area Thermal Power Branch Company of Gansu Huanghe Hydropower Co., Ltd. subordinate to the Company may be exempt from the house property tax on its plants used for heat supply to residents.

(4) According to the Forwarding the Circular of the Ministry of Finance and the State Taxation Administration on Implementing the Policy on Inclusive Tax Reliefs for Small and Micro Enterprises (JCS [2019] No. 196), from January 1, 2019 to December 31, 2021, small-scale VAT taxpayers shall pay the house property tax at 50%. SPIC Qinghai Photovoltaic Industry Innovation Center Co., Ltd., a subsidiary of the Company shall pay the house property tax at 50%.

(5) According to the *Implementing Rules on the In-depth Implementation of Opinions on Strategies and Policies for the Development of Western China* (for trial implementation) (QBF [2010] No. 66), newly-established industrial enterprises in the encouraged category shall be exempt from the house property tax for five years from the commencement date of operation. Wulan Wind Power Generation Company of Qinghai Huanghe Hydropower Development C., Ltd. subordinate to the Company may be exempt from the house property tax.

6.2.5 Preferential policies for consumption tax

According to the *Circular on the Ministry of Finance and the State Taxation Administration on the Imposition of Consumption Tax on Batteries and Coatings* (CS [2015] No. 16), in which mercury-free galvanic cell, nickel-metalhydrogen storage battery (also known as "nickel hydrogen battery" or "nickel-hydrogen storage battery"), lithium galvanic cell, lithium ion battery, solar cell, fuel cell and all-vanadium redox flow battery shall be exempt from the consumption tax, thus, the solar cells sold by SPIC Xi'an Solar Power Co., Ltd. and Huanghe Hydropower Xining Solar Power Co., Ltd., subsidiaries of the Company, may be exempt from the consumption tax.

6.2.6 Preferential policies for urban maintenance and construction tax and educational surtax

According to Article 6 in the *Circular of the People's Government of Qinghai Province on Issuing the Preferential Policies for Investment Invitation in Xining Economic and Technological Development Zone* (QZ [2001] No. 34), stating that "All types of investment enterprises in the development zone will be exempt from the urban real estate tax, property tax, land use tax, deed tax, educational surtax and urban maintenance and construction tax for five years"; according to the document (QZB [2020] No. 50) and the *Measures for the Formulation and Filing of Administrative Normative Documents in Qinghai Province* (No. 99 Order of the People's Government of Qinghai Province), the provincial government decided to abolish the *Circular of the People's Government of Qinghai Province on Issuing the Preferential Policies for Investment Invitation in Xining Economic and Technological Development Zone* (QZ [2001] No. 34). The Circular has been implemented as of the date of issue (June 30,

2020). Qinghai Huanghe Electric Power Operation Co., Ltd., a subsidiary of the Company may enjoy the preferential policy of exempting the educational surtax and urban maintenance and construction tax from January to June in 2020.

6.3 Other description

None.

7 Business combination and consolidated financial statements

(Unless otherwise specified, figures in the following tables shall be expressed in RMB '0,000)

7.1 Subsidiaries

No.	Name of enterprise	Level	Enterprise type	Registration place	Principal place of business	Nature of business	Paid-in capital	Shareholding ratio (%)	Voting ratio (%)	Investment amount	Method of acquisition
1	SPIC Northeast Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Shenyang	Shenyang	Production and sales of electric heating	760,449.41	100.00	100.00	1,272,559.14	Established by investment
2	SPIC Hebei Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Shijiazhuang	Shijiazhuang	Production and sales of electric power	89,596.87	100.00	100.00	176,731.43	Established by investment
3	SPIC Henan Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Zhengzhou	Zhengzhou	Production and sales of electric power	272,635.00	100.00	100.00	940,462.96	Established by investment
4	SPIC Jiangxi Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Nanchang	Nanchang	Production and sales of electric power	207,003.07	56.82	56.82	492,452.14	Established by investment
5	China Power International Holding Limited	2	Domestic non-financial subsidiary	Hong Kong	Hong Kong	Investment, production and sales of electric power	1,019,805.92	100.00	100.00	974,154.64	Established by investment
6	Shanghai Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Shanghai	Shanghai	Production and sales of electric heating	261,716.42	54.25	54.25	591,841.65	Established by investment
7	SPIC Yuanda Environmental Protection Co., Ltd.	2	Domestic non-financial subsidiary	Chongqing	Chongqing	Environmental protection	78,081.69	43.74	43.74	183,511.55	Business combination not under common control
8	SPIC Huanghe Hydropower Development Co., Ltd.	2	Domestic non-financial subsidiary	Xi'an	Xi'an	Production and sales of electric power	1,745,776.51	94.17	94.17	1,251,689.98	Established by investment
9	China Power Complete Equipment Co., Ltd	2	Domestic non-financial subsidiary	Beijing	Beijing	Complete set of electricity service	23,339.41	100.00	100.00	30,206.21	Established by investment
10	SPIC Mengdong Energy Co., Ltd.	2	Domestic non-financial subsidiary	Tongliao	Tongliao	Coal, electricity or aluminum industry	330,000.00	65.00	65.00	229,512.63	Business combination not under common control
11	SPIC Jilin Energy Investment Co., Ltd.	2	Domestic non-financial subsidiary	Changchun	Changchun	Production and sales of electric power	309,940.52	100.00	100.00	359,856.34	Established by investment

No.	Name of enterprise	Level	Enterprise type	Registration place	Principal place of business	Nature of business	Paid-in capital	Shareholding ratio (%)	Voting ratio (%)	Investment amount	Method of acquisition
12	State Nuclear Power Technology Corporation	2	Domestic non-financial subsidiary	Beijing	Beijing	Investment in nuclear power project	2,402,883.53	91.67	91.67	3,794,752.73	Others
13	SPIC Yunnan International Power Investment Co., Ltd.	2	Domestic non-financial subsidiary	Kunming	Kunming	Production and sales of electric power	348,293.00	100.00	100.00	355,683.73	Established by investment
14	SPIC Guizhou Jinyuan Co., Ltd.	2	Domestic non-financial subsidiary	Guiyang	Guiyang	Production and sales of electric power	469,231.54	68.05	68.05	319,312.00	Business combination not under common control
15	SPIC Xinjiang Energy and Chemical Industry Co., Ltd.	2	Domestic non-financial subsidiary	Urumqi	Urumqi	Investment and management of chemical industry	410,293.37	67.94	67.94	345,304.00	Established by investment
16	China Power Investment Co., Ltd.	2	Domestic non-financial subsidiary	Beijing	Beijing	Project investments	8,600.00	100.00	100.00	5,829.55	Established by investment
17	SPIC Aluminum & Power Investment Co., Ltd.	2	Domestic non-financial subsidiary	Beijing	Beijing	Investment in overseas mining	447,713.16	100.00	100.00	922,404.80	Established by investment
18	SPIC Sichuan Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Chengdu	Chengdu	Production and sales of electric power	258,725.24	100.00	100.00	258,725.24	Established by investment
19	CPI (Shanghai) Aluminum Co., Ltd.	2	Domestic non-financial subsidiary	Shanghai Municipality	Shanghai Municipality	Aluminium trade	10,000.00	100.00	100.00	10,000.00	Established by investment
20	SPIC Information Technology Co., Ltd.	2	Domestic non-financial subsidiary	Beijing	Beijing	Software development and information service	35,798.73	98.13	100.00	30,074.03	Established by investment
21	SPIC Dongfang New Energy Corporation	2	Domestic non-financial subsidiary	Shijiazhuang	Shijiazhuang	Production and sales of heating power	538,341.85	59.39	59.39	1,054,191.17	Business combination not under common control
22	China United Gas Turbine Technology Co., Ltd.	2	Domestic non-financial subsidiary	Shanghai Municipality	Shanghai Municipality	Technology development and service	162,000.00	71.70	71.70	116,160.00	Established by investment

No.	Name of enterprise	Level	Enterprise type	Registration place	Principal place of business	Nature of business	Paid-in capital	Shareholding ratio (%)	Voting ratio (%)	Investment amount	Method of acquisition
23	State Power Investment Overseas Co., Ltd.	2	Domestic non-financial subsidiary	Zhuhai	Zhuhai	Overseas development of and investment in nuclear power	28,250.00	100.00	100.00	23,750.00	Established by investment
24	SPIC Chongqing Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Chongqing Municipality	Chongqing Municipality	Development and management of power supply	388,683.20	100.00	100.00	444,588.81	Established by investment
25	SPIC Fujian Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Fuzhou	Fuzhou	Power generation	3,550.00	100.00	100.00	25,244.33	Established by investment
26	SPIC Research Institute of Science and Technology	2	Domestic non-financial subsidiary	Beijing	Beijing	Engineering and technical research	120,000.00	96.00	100.00	73,355.89	Established by investment
27	Hong Kong Treasury Management Co., Ltd.	2	Domestic non-financial subsidiary	Hong Kong	Hong Kong	Investment	81,340.28	100.00	100.00	81,446.47	Established by investment
28	SPIC Asset Management Co., Ltd.	2	Domestic non-financial subsidiary	Hedong District, Tianjin	Hedong District, Tianjin	Foreign investment	186,649.50	100.00	100.00	186,649.50	Established by investment
29	SPIC Inner Mongolia Energy Co., Ltd.	2	Domestic non-financial subsidiary	Hohhot	Hohhot	Coal mining and power production	222,419.44	100.00	100.00	1,204,251.41	Established by investment
30	SPIC Beijing Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Mentougou, Beijing	Mentougou, Beijing	Power supply	611,605.70	55.15	55.15	300,179.08	Established by investment
31	Jiaxing Rongneng New Energy Technology Investment Partnership (Limited Partnership)	2	Domestic non-financial subsidiary	Jiaxing, Zhejiang	Jiaxing, Zhejiang	Investment in energy sector	20,000.00	83.38	100.00	5,000.00	Established by investment
32	SPIC Heilongjiang Lvtuo New Energy Co., Ltd.	2	Domestic non-financial subsidiary	Harbin	Harbin	Wind power and solar power generation	22,715.00	100.00	100.00	22,715.00	Established by investment
33	SPIC Shanxi Clean Energy Co., Ltd.	2	Domestic non-financial subsidiary	Taiyuan	Taiyuan	Power and heat production	13,000.00	100.00	100.00	9,400.00	Established by investment

No.	Name of enterprise	Level	Enterprise type	Registration place	Principal place of business	Nature of business	Paid-in capital	Shareholding ratio (%)	Voting ratio (%)	Investment amount	Method of acquisition
34	SPIC Fund Management Co., Ltd.	2	Domestic financial subsidiary	Beijing	Beijing	Entrusted management of equity investment funds and asset management	32,000.00	100.00	100.00	32,000.00	Established by investment
35	State Nuclear Capital Holdings Co., Ltd.	2	Domestic financial subsidiary	Shanghai	Shanghai	Equity investment and industrial investment	116,346.08	64.46	64.46	88,381.38	Established by investment
36	Beijing Changqing Diantou Hydrogen Energy Industry Investment Center (Limited Partnership)	2	Domestic non-financial subsidiary	Beijing	Beijing	Equity investment, investment management and assets management	600.00	65.33	66.66	600.00	Established by investment
37	SPIC Hainan New Energy Investment Co., Ltd.	2	Domestic non-financial subsidiary	Hainan	Hainan	New energy and power development	7,116.20	100.00	100.00	7,116.20	Established by investment
38	SPIC Xiong'an Energy Co., Ltd.	2	Domestic non-financial subsidiary	Shijiazhuang	Shijiazhuang	Wind power and solar power generation	2,000.00	100.00	100.00	2,000.00	Established by investment
39	SPIC Integrated Intelligent Energy Technology Co., Ltd.	2	Domestic non-financial subsidiary	Beijing	Beijing	New energy technology development	9,420.00	100.00	100.00	9,420.00	Established by investment
40	SPIC Hydrogen Energy Technology Development Co., Ltd.	2	Domestic non-financial subsidiary	Beijing	Beijing	Technology research & development and sales of new energy	9,270.01	51.84	52.42	2,782.13	Established by investment
41	SPIC Heilongjiang Nuclear Energy Heating Co., Ltd.	2	Domestic non-financial subsidiary	Jiamusi, Heilongjiang	Jiamusi, Heilongjiang	Power and heat production	4,300.00	100.00	100.00	4,300.00	Established by investment
42	Guangxi SPIC Overseas Energy Investment Co., Ltd.	2	Domestic non-financial subsidiary	Nanning	Nanning	Foreign investment	172,000.00	52.10	95.00	162,000.00	Established by investment
43	SPIC Hunan Integrated Intelligent Energy Co., Ltd.	2	Domestic non-financial subsidiary	Changsha	Changsha	New energy technology development	5,000.00	100.00	100.00	5,000.00	Established by investment

No.	Name of enterprise	Level	Enterprise type	Registration place	Principal place of business	Nature of business	Paid-in capital	Shareholding ratio (%)	Voting ratio (%)	Investment amount	Method of acquisition
44	Diantou Huanghe (Jiaxing) Energy Investment Partnership (Limited Partnership)	2	Domestic non-financial subsidiary	Jiaxing, Zhejiang	Jiaxing, Zhejiang	Investment in energy sector					Under liquidation
45	SPIC Technology Innovation Equity Investment Fund (Tianjin) Partnership (Limited Partnership)	2	Structured entities	Beijing	Beijing	Foreign investment	10,013.16	99.94	100.00	10,000.00	Established by investment
46	SPIC Sanxin Industry Equity Investment Fund (Tianjin) Partnership (Limited Partnership)	2	Structured entities	Beijing	Beijing	Foreign investment	7,894.52	100.00	100.00	7,894.52	Established by investment
47	SPIC Chuangke Clean Energy Investment (Tianjin) Partnership (Limited Partnership)	2	Structured entities	Beijing	Beijing	Foreign investment	40,050.00	65.04	65.04	26,050.00	Established by investment
48	SPIC Qingneng No. 1 Equity Investment Fund (Tianjin) Partnership (Limited Partnership)	2	Structured entities	Beijing	Beijing	Foreign investment	32,799.90	100.00	100.00	32,799.90	Established by investment
49	Shanghai China Power Investment Ronghe New Energy Investment Management Center (Limited Partnership)	2	Structured entities	Beijing	Beijing	Foreign investment	197,253.13	59.07	91.95	181,785.24	Established by investment

No.	Name of enterprise	Level	Enterprise type	Registration place	Principal place of business	Nature of business	Paid-in capital	Shareholding ratio (%)	Voting ratio (%)	Investment amount	Method of acquisition
50	Shanghai CPI Ronghe Equity Investment Fund Partnership (Limited Partnership)	2	Structured entities	Beijing	Beijing	Foreign investment	11,650.80	51.77	82.48	9,609.75	Established by investment
51	SPIC Clean Energy - Green Energy No.1 Private Equity Fund	2	Structured entities	Beijing	Beijing	Foreign investment	1,000.00	42.08	69.85	695.12	Established by investment
52	SPIC Ronghe New Energy Industry Fund No. 5	2	Structured entities	Beijing	Beijing	Foreign investment					
53	SPIC Ronghe New Energy Industry Fund No. 6	2	Structured entities	Beijing	Beijing	Foreign investment					
54	China Power International Development Limited	3	Overseas non-financial subsidiary	Hong Kong	Hong Kong	Production and sales of electric power	902,060.16	56.04	56.04	563,260.71	Established by investment
55	Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia	3	Domestic non-financial subsidiary	Tongliao	Tongliao	Coal production and sales	192,157.35	59.22	59.22	198,518.40	Established by investment
56	Jilin Electric Power Co., Ltd.	3	Domestic non-financial subsidiary	Changchun	Changchun	Power construction and production	214,631.40	28.15	28.15	235,239.96	Established by investment
57	Wuling Power Corporation Ltd.	4	Domestic non-financial subsidiary	Changsha	Changsha	Hydropower production and sales	852,913.00	63.00	63.00	311,546.97	Established by investment

7.2 Reasons for that the parent company with less than half of the voting rights in the investee has control over the investee

No.	Name of enterprise	Shareholding ratio (%)	Voting ratio (%)	Registered capital	Investment amount	Level	Reason for being included in the scope of consolidation
1	SPIC Yuanda Environmental Protection Co., Ltd.	43.74	43.74	78,081.69	183,511.55	2	It is the largest shareholder and the voting rights held by other investors are scattered, so the Company has substantial control
2	Jilin Electric Power Co., Ltd.	28.15	28.15	214,631.40	235,239.96	3	It is the largest shareholder and the voting rights held by other investors are scattered, so the Company has substantial control

7.3 Information of significant non-wholly-owned subsidiaries

7.3.1 Minority shareholders

No.	Name of enterprise	Shareholding ratio of minority shareholders (%)	Profit or loss attributable to minority shareholders in 2020	Dividends paid to minority shareholders in 2020	Accumulated minority equity as at December 31, 2020
1	SPIC Yuanda Environmental Protection Co., Ltd.	56.26	1,481.51	2,196.42	285,286.94
2	SPIC Dongfang New Energy Corporation	40.61	51,610.34	2,186.21	674,647.17
3	State Nuclear Power Technology Corporation	8.33	-403.11		316,900.78
4	Shanghai Electric Power Co., Ltd.	45.75	40,693.16	13,840.08	897,195.28
5	SPIC Huanghe Hydropower Development Co., Ltd.	5.83	16,873.06	37,714.97	179,992.74
6	SPIC Guizhou Jinyuan Co., Ltd.	31.95	68,401.24		6,842.30
7	SPIC Beijing Electric Power Co., Ltd.	44.85	1,611.99		379,274.62

7.3.2 Main financial information

Item	Year 2020						
	SPIC Yuanda Environmental Protection Co., Ltd.	SPIC Dongfang Energy Corporation	State Nuclear Power Technology Corporation	Shanghai Electric Power Co., Ltd.	SPIC Huanghe Hydropower Development Co., Ltd.	SPIC Guizhou Jinyuan Co., Ltd.	SPIC Beijing Electric Power Co., Ltd.
Current assets	398,370.35	5,605,578.83	3,298,107.09	1,820,157.61	2,921,944.67	1,476,046.11	692,198.62
Non-current assets	558,274.20	3,535,318.29	13,995,649.43	11,074,526.07	11,463,362.40	4,792,350.22	2,349,640.06
Total assets	956,644.55	9,140,897.12	17,293,756.52	12,894,683.68	14,385,307.07	6,268,396.33	3,041,838.68
Current liabilities	324,746.46	4,861,175.24	5,509,757.29	4,378,754.53	3,094,120.36	1,829,133.70	541,979.37
Non-current liabilities	81,379.23	942,911.87	6,061,305.20	5,048,217.93	6,211,468.32	3,716,029.24	1,379,259.60
Total liabilities	406,125.69	5,804,087.12	11,571,062.49	9,426,972.47	9,305,588.67	5,545,162.94	1,921,238.97
Operating revenue	367,823.77	1,011,772.46	2,837,260.78	2,420,283.78	3,477,591.21	1,464,120.53	275,275.28
Net profit	4,063.51	272,856.62	99,841.34	191,130.82	459,604.86	-206,594.16	57,374.03
Total comprehensive income	5,201.89	270,325.89	110,966.61	199,026.70	463,677.30	-206,210.39	57,374.03
Cash flows from operating activities	8,920.33	105,524.03	-1,289.32	727,316.10	388,422.17	120,358.01	210,637.33

(Continued)

Item	Year 2019						
	SPIC Yuanda Environmental Protection Co., Ltd.	SPIC Dongfang Energy Corporation	State Nuclear Power Technology Corporation	Shanghai Electric Power Co., Ltd.	SPIC Huanghe Hydropower Development Co., Ltd.	SPIC Guizhou Jinyuan Co., Ltd.	SPIC Beijing Electric Power Co., Ltd.
Current assets	383,023.95	4,711,780.74	3,207,530.85	1,802,095.49	2,622,827.76	927,896.95	459,790.43
Non-current assets	531,814.53	3,246,647.17	13,116,601.83	9,300,176.25	9,968,210.90	4,557,806.83	1,932,484.50
Total assets	914,838.48	7,958,427.91	16,324,132.69	11,102,271.74	12,591,038.66	5,485,703.78	2,392,274.93
Current liabilities	336,104.05	4,227,314.22	5,234,481.28	4,510,195.31	2,721,506.71	2,051,429.51	449,676.70
Non-current liabilities	36,309.54	662,422.68	5,517,309.56	3,585,192.45	5,227,146.72	2,847,762.90	1,287,060.75
Total liabilities	372,413.59	4,889,736.90	10,751,790.84	8,095,387.76	7,948,653.43	4,899,192.41	1,736,737.45
Operating revenue	406,754.37	847,358.34	2,715,712.68	2,369,003.46	2,992,616.78	1,544,420.21	248,143.79
Net profit	12,512.32	248,602.92	219,646.58	201,782.78	404,589.98	-13,025.59	43,435.55
Total comprehensive income	12,942.54	247,988.22	242,909.29	205,219.88	403,939.36	-12,726.37	43,435.55
Cash flows from operating activities	42,873.52	-206,094.93	197,595.22	593,013.22	387,653.51	169,054.17	178,330.73

7.4 Original subsidiaries no longer included in the scope of consolidation in 2020

7.4.1 Basic information about the original subsidiaries

No.	Name of enterprise	Registration place	Nature of business	Shareholding ratio (%)	Voting ratio (%)	Reason for no longer being a subsidiary in 2020
1	China Kangfu International Leasing Co., Ltd.	Beijing	Finance lease	20.05	20.05	Termination of the agreement on action in concert
2	Tianjin Kangfu No.2 Finance Leasing Co., Ltd.	Tianjin	Finance lease	100.00	100.00	Parent company's termination of agreement on action in concert
3	Kangfu International Investment Group Co., Ltd.	Tianjin	Finance lease	100.00	100.00	Parent company's termination of agreement on action in concert
4	Tianjin Kangfu No.5 Finance Leasing Co., Ltd.	Tianjin	Finance lease	100.00	100.00	Parent company's termination of agreement on action in concert
5	Gonghe County Xinte Photovoltaic Power Generation Co., Ltd.	Gonghe County, Hainan Province	Finance lease	100.00	100.00	Parent company's termination of agreement on action in concert
6	Tianjin Kangfu No.4 Finance Leasing Co., Ltd.	Tianjin	Finance lease	100.00	100.00	Parent company's termination of agreement on action in concert
7	Tianjin Kangfu No.3 Finance Leasing Co., Ltd.	Tianjin	Finance lease	100.00	100.00	Parent company's termination of agreement on action in concert
8	Tianjin Kangfu No.1 Financing Lease Co., Ltd.	Tianjin	Finance lease	100.00	100.00	Parent company's termination of agreement on action in concert
9	Baishan Thermal Power Co., Ltd.	Baishan, Jilin	Thermal power generation	100.00	100.00	Transferred out gratuitously
10	Baishan Hongcheng Electric Power Industry Co., Ltd.	Baishan, Jilin	Comprehensive	100.00	100.00	Transferred out gratuitously
11	SPIC Guizhou Jinyuan Suiyang Industrial Co., Ltd.	Zunyi, Guizhou	Production and sales of cement and iron alloy	100.00	100.00	Loss of control due to the sale of equity
12	Guizhou Jinhe Smelting Co., Ltd.	Guiyang, Guizhou	Smelting and sales of mineral products	98.98	98.98	Liquidation and cancellation
13	Dafang Zhongyuan Ferroalloy Co., Ltd.	Dafang, Guizhou	Smelting and sales of mineral products	51.09	51.09	Liquidation and cancellation
14	Fenggang County Lianxing Hydropower Development Co., Ltd.	Fenggang, Guizhou	Hydroelectric development	55.00	55.00	Liquidation and cancellation

No.	Name of enterprise	Registration place	Nature of business	Shareholding ratio (%)	Voting ratio (%)	Reason for no longer being a subsidiary in 2020
15	Guizhou Qianxi Guiqing Coal Development Co., Ltd.	Bijie, Guizhou	Coal exploitation and sales	80.69	80.69	Liquidation and cancellation
16	CPI Huolinhe Coal and Power Group Aluminum Co., Ltd.	Tongliao, Inner Mongolia	Production and sale of aluminum products	76.89	76.89	Liquidation and cancellation
17	Tonghua Thermal Power Co., Ltd.	Tonghua, Jilin	Thermal power generation	100.00	100.00	Sales and transfer
18	Tonghua Energy Industry Co., Ltd.	Tonghua, Jilin	Comprehensive	100.00	100.00	Sales and transfer
19	Shijiazhuang Dongfang Yuanshun Real Estate Development Co., Ltd.	Shijiazhuang City, Hebei Province	Real estate	60.00	60.00	Bankruptcy and restructuring
20	Huaian Dongfang Yuanshun Real Estate Co., Ltd.	Huai'an, Jiangsu	Real estate	67.00	67.00	Bankruptcy and restructuring
21	Chengmai Binhai European-style Construction Co., Ltd.	Haikou City, Hainan Province	Real estate	100.00	100.00	Sales and transfer
22	Hainan Fantasy Island Sea Sports Creative Park Co., Ltd.	Haikou, Hainan	Real estate	90.00	90.00	Sales and transfer
23	SPIC Chongqing Baihe Electric Power Co., Ltd.	Chongqing	Production and sales of electric power	60.00	60.00	Loss of control due to the sale of equity
24	SPIC Chongqing Yuxi Gangqiao Power Co., Ltd.	Chongqing	Placement of electricity	70.00	70.00	Cancellation
25	Dalian Yuri Photovoltaic Power Generation Co., Ltd.	Dalian	Photovoltaic power generation	100.00	100.00	Cancellation
26	Putian SPIC Huafeng Photovoltaic Power Generation Co., Ltd.	Putian, Fujian	Power generation	100.00	100.00	Deregistered in 2020
27	Yangpu Yaolong Electric Power Technology Development Co., Ltd.	Yangpu, Hainan	Electric power technology services	100.00	100.00	Liquidation and cancellation
28	SPIC Anhui Conch Power Sales Co., Ltd.	Hefei	Power and heat production and supply	50.00	50.00	Change in director's seats and losing of control
29	SPIC Guangxi Beibu Gulf (Qinzhou) Cogeneration Co., Ltd.	Qinzhou, Guangxi	Cogeneration	51.00	51.00	Bankruptcy and restructuring
30	Sichuan Xingtie Electric Equipment Co., Ltd.	Sichuan	Hydropower	70.00	70.00	Equity transfer
31	Xinlong County Xida Hydropower Development Co., Ltd.	Xinlong, Sichuan	Hydropower	65.00	65.00	Equity transfer
32	Longshan Zhongshui Hydropower Development Co., Ltd.	Xiangxi, Hunan	Hydropower	56.04	56.04	Others

No.	Name of enterprise	Registration place	Nature of business	Shareholding ratio (%)	Voting ratio (%)	Reason for no longer being a subsidiary in 2020
33	Hainan Lvjian Ecological City Development Co., Ltd.	Qionghai, Hainan	New energy power generation	61.21	61.21	Liquidation and cancellation
34	Lingqiu Zhongdian Ecological Photovoltaic Power Generation Co., Ltd.	Datong, Shanxi	New energy power generation	61.21	61.21	Liquidation and cancellation
35	Ningyang SPIC New Energy Co., Ltd.	Tai'an	Production and sales of electric power	100.00	100.00	Cancellation
36	Qihe Diantou Sangni New Energy Co., Ltd.	Dezhou	Production and sales of electric power	70.00	70.00	Cancellation
37	Sichuan Zhongshui Energy Co., Ltd.	Chengdu	Development, investment, construction, operation and management of power source	57.14	57.14	Cancellation
38	Liaoning Yuanda Catalyst Comprehensive Utilization Co., Ltd.	Shenyang, Liaoning	Environmental governance	36.00	36.00	Bankruptcy liquidation
39	CPI Yuanda Environmental - Hebei Co., Ltd.	Handan, Hebei	Environmental governance	84.72	84.72	Bankruptcy liquidation
40	Tianjin Huaze Information Technology Co., Ltd.	Tianjin	Technical services	87.00	87.00	Liquidation and cancellation
41	SEP Shichuanmen Qianfeng Wind Power Contract Company	Japan	Wind power	100.00	100.00	Liquidation and cancellation
42	SEP Qingsen Small Wind Power Contract Company	Japan	Wind power	70.00	70.00	Liquidation and cancellation
43	SEP Dongbei Small Wind Power Contract Company	Japan	Wind power	70.00	70.00	Liquidation and cancellation
44	Shanghai Electric Power Finance Co., Ltd.	BVI (British Virgin Islands)	Finance	100.00	100.00	Liquidation and cancellation
45	SPIC Xinchang Sonny New Energy Co., Ltd.	Shaoxing, Zhejiang	New energy power generation	70.00	70.00	Liquidation and cancellation
46	Technology Business Department of Shanghai Nuclear Industry Nondestructive Testing Center	Shanghai	Technical services	100.00	100.00	Liquidation and cancellation
47	National Nuclear (Beijing) Conference Service Center Co., Ltd.	Beijing	Services	100.00	100.00	Liquidation and cancellation
48	Shanghai Nuclear Engineering Research & Design Institute Co., Ltd.	Shanghai	Survey and design	100.00	100.00	Liquidation and cancellation
49	Jingtai Xinneng Sitan Wind Power Generation Co., Ltd.	Jingtai, Gansu	Wind power	80.00	80.00	Others

No.	Name of enterprise	Registration place	Nature of business	Shareholding ratio (%)	Voting ratio (%)	Reason for no longer being a subsidiary in 2020
50	Xiaojin County Xinhong Electric Power Development Co., Ltd.	Abazhou, Sichuan	Hydropower	100.00	100.00	Sales and transfer
51	Suzhou Hechuang New Energy Co., Ltd.	Suzhou, Jiangsu	New energy power generation	65.00	65.00	Liquidation and cancellation

Remark: The financial positions of a total of 51 entities of the Group that were no longer included in the scope of consolidated statements through equity transfer, gratuitous transfer, bankruptcy liquidation are shown in the table below.

7.4.2 Financial situation on the disposal date of the original subsidiaries disposed of in 2020

Name of the original subsidiary	China Kangfu International Leasing Co., Ltd.		Baishan Thermal Power Co., Ltd.		SPIC Guizhou Jinyuan Suiyang Industrial Co., Ltd.		CPI Huolinhe Coal and Power Group Aluminum Co., Ltd.	
Expiry date	Date of disposal: June 30, 2020	As at December 31, 2019	Date of disposal: May 31, 2020	As at December 31, 2019	Date of disposal: December 31, 2020	As at December 31, 2019	Date of disposal: May 31, 2020	As at December 31, 2019
Assets	3,196,282.85	3,151,111.73	244,752.97	247,479.93	620,397.57	533,546.80	20,021.99	28,570.31
Liabilities	2,779,648.29	2,744,677.64	247,165.52	247,000.02	542,071.96	455,983.21	141,708.90	151,001.97
Owners' equity	416,634.56	406,434.09	-2,412.55	479.91	78,325.61	77,563.59	-121,686.91	-122,431.67

(Continued)

Name of original subsidiary	Tonghua Thermal Power Co., Ltd.		SPIC Chongqing Baihe Electric Power Co., Ltd.		Yangpu Yaolong Electric Power Technology Development Co., Ltd.		Sichuan Zhongshui Energy Co., Ltd.	
Expiry date	Date of disposal: July 31, 2020	As at December 31, 2019	Date of disposal: September 30, 2020	As at December 31, 2019	Date of disposal: November 30, 2020	As at December 31, 2019	Date of disposal: December 31, 2020	As at December 31, 2019
Assets	170,028.14	177,467.27	171,343.55	131,779.02	3,017.09	3,006.29	207,785.78	219,700.82
Liabilities	177,671.33	180,719.39	175,396.90	129,798.75	2.58	98.40	80,406.36	88,655.52
Owners' equity	-7,643.19	-3,252.12	-4,053.35	1,980.27	3,014.51	2,907.89	127,379.42	131,045.30

7.4.3 Business achievements of subsidiaries disposed in 2020 from January 1, 2020 to the date of disposal

Name of the original subsidiary	China Kangfu International Leasing Co., Ltd.		Baishan Thermal Power Co., Ltd.		SPIC Guizhou Jinyuan Suiyang Industrial Co., Ltd.		CPI Huolinhe Coal and Power Group Aluminum Co., Ltd.	
Period	January 1, 2020-Date of disposal	Year 2019	January 1, 2020-Date of disposal	Year 2019	January 1, 2020-Date of disposal	January 1, 2020-Date of disposal	January 1, 2020-Date of disposal	Year 2019
Operating revenue	99,822.27	206,161.71	41,938.63	90,948.70	24,538.78	27,276.74	16,216.51	26,405.03
Operating costs	72,960.32	150,497.88	44,831.08	111,701.17	21,303.68	19,579.94	16,046.62	46,536.86
Operating profits	25,124.53	48,548.10	-2,892.45	-13,321.56	927.53	5,782.84	680.02	-56,531.93
Total profits	25,157.87	50,587.34	-2,892.45	-10,486.64	140.22	6,003.71	744.76	-56,569.31
Net profit	18,729.15	38,039.89	-2,892.45	-10,486.64	140.22	6,003.71	744.76	-56,569.31

(Continued)

Name of original subsidiary	Tonghua Thermal Power Co., Ltd.		SPIC Chongqing Baihe Electric Power Co., Ltd.		Yangpu Yaolong Electric Power Technology Development Co., Ltd.		Sichuan Zhongshui Energy Co., Ltd.	
Period	January 1, 2020-Date of disposal	Year 2019	January 1, 2020-Date of disposal	Year 2019	January 1, 2020-Date of disposal	January 1, 2020-Date of disposal	January 1, 2020-Date of disposal	Year 2019
Operating revenue	48,815.45	68,753.57	41,176.82	65,112.89				13,379.49
Operating costs	53,206.52	85,356.37	44,656.42	73,431.78			99.25	13,733.14
Operating profits	-4,391.07	-23,681.76	-6,044.27	-9,995.24	101.61	-5.16	-99.25	-20,296.72
Total profits	-4,391.07	-23,440.88	-6,058.74	-9,978.62	101.61	-5.16	-99.25	-20,296.72
Net profit	-4,391.07	-23,494.07	-6,058.74	-9,978.62	74.61	-5.16	-99.25	-20,926.72

7.5 Entities newly included in the consolidation scope in 2020

No.	Name	Way of forming the right of control	Net asset as at December 31, 2020	Net profit in 2020
1	SPIC Heilongjiang Nuclear Energy Heating Co., Ltd.	Established by investment	4,300.00	
2	SPIC Fujian Electric Power Co., Ltd.	Established by investment	33,555.07	595.39
3	SPIC Integrated Intelligent Energy Technology Co., Ltd.	Established by investment	10,221.56	381.56
4	Guangxi SPIC Overseas Energy Investment Co., Ltd.	Established by investment	212,247.62	8,265.00
5	Hunan Integrated Intelligent Energy Co., Ltd.	Established by investment	7,067.21	1,003.41
6	SPIC Technology Innovation Equity Investment Fund (Tianjin) Partnership (Limited Partnership)	Established by investment	10,013.17	0.01
7	SPIC Sanxin Industry Equity Investment Fund (Tianjin) Partnership (Limited Partnership)	Established by investment	7,894.55	0.03
8	SPIC Chuangke Clean Energy Investment (Tianjin) Partnership (Limited Partnership)	Established by investment	39,026.11	-1,023.89
9	SPIC Qingneng No. 1 Equity Investment Fund (Tianjin) Partnership (Limited Partnership)	Established by investment	32,797.14	-2.75
10	Shanghai China Power Investment Ronghe New Energy Investment Management Center (Limited Partnership)	Established by investment	197,195.99	13,836.27
11	Shanghai CPI Ronghe Equity Investment Fund Partnership (Limited Partnership)	Established by investment	11,582.63	-18.02
12	SPIC Clean Energy - Green Energy No.1 Private Equity Fund	Established by investment	951.18	-48.82

Remark: A total of 314 entities were newly included in the scope of consolidation during the period, including 12 Level 2 entities, 56 Level 3 entities, 138 Level 4 entities, 85 Level 5 entities, 21 Level 6 entities and 2 Level 7 entities.

7.6 Business combination not under common control occurred in 2020

Name of company	Combination date	Book net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to the end of the period	Net profit of the acquiree from the acquisition date to the end of the period
			Amount	Determination method		Amount	Determination method		
Wanrong Xinjia New Energy Co., Ltd.	2020-12-31	8,369.54	8,369.44	Remark 1	8,369.44				
Huocheng Huaguang Power Generation Co., Ltd.	2020-11-30	4,293.03	4,226.71	Remark 1	2,820.80	-560.57	Remark 3	108.55	3.12
Hetian Saiwei Photovoltaic Technology Co., Ltd.	2020-11-30	5,909.91	5,971.44	Remark 1	4,043.58	-733.58	Remark 3	201.13	21.39
Qapqal Huaguang Power Generation Co., Ltd.	2020-11-30	4,330.86	4,394.81	Remark 1	3,909.05	-485.75	Remark 3	113.48	4.80
Dulan Daxueshan Wind Power Co., Ltd.	2020-10-31	16.32	57.65	Remark 1	10.00	-47.65	Remark 3	1,070.28	1,587.03
Yanchang Qunxin Industry & Trade Co., Ltd.	2020-11-30	1,638.25	1,820.35	Remark 1	1,569.03	-251.32	Remark 3	124.60	66.91
Hunan Power Investment Hongxiang Climate Intelligent Technology Co., Ltd.	2020-6-30	2,364.00	2,373.96	Remark 1	1,300.20			1,211.69	302.22
Hong Kong Nanyang Co., Ltd.	2019-12-31	8,497.13	8,497.13	Remark 1	8,497.13			2,221.02	302.09
Gansu Minqin Huineng New Energy Development Co., Ltd.	2020-12-31	35,536.18	35,265.17	Remark 1	33,805.00	-1,460.17	Remark 3		
Guodian Kezuo Houqi Photovoltaic Power Generation Co., Ltd.	2020-12-31	41,280.73	41,773.73	Remark 1	40,202.70	-820.02	Remark 3		

Name of company	Combination date	Book net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to the end of the period	Net profit of the acquiree from the acquisition date to the end of the period
			Amount	Determination method		Amount	Determination method		
Gansu China Energy Power Development Co., Ltd.	2020-12-31	28,753.69	28,458.65	Remark 1	27,871.00	-587.65	Remark 3		
Ningxia Zhongli Tenghui New Energy Co., Ltd.	2020-12-31	4,271.05	5,049.17	Remark 1	4,696.05	-353.12	Remark 3		
Hami Changhui Photovoltaic Power Generation Co., Ltd.	2020-12-31	1,989.93	3,036.62	Remark 1	2,786.70	-303.60	Remark 3		
Yili Ximeishi New Energy Co., Ltd.	2020-12-31	364.59	1,749.98	Remark 1	1,011.64	-757.89	Remark 3		
Turpan Zhonghui Photovoltaic Power Generation Co., Ltd.	2020-12-31	1,108.10	1,862.04	Remark 1	954.84	-954.48	Remark 3		
Turpan Xiehe Solar Power Co., Ltd.	2020-12-31	1,102.11	1,652.24	Remark 1	903.56	-793.78	Remark 3		
Turpan Yuze Photovoltaic Power Generation Co., Ltd.	2020-12-31	1,041.47	1,312.94	Remark 1	844.98	-463.85	Remark 3		
Xuwen County Haoneng Photovoltaic Power Generation Co., Ltd.	2020-11-30	6,334.39	6,311.76	Remark 1	5,603.00	-708.76	Remark 3	140.47	66.97
Guixi Shenyang New Energy Co., Ltd.	2020-9-30	4,800.00	4,800.00	Remark 1	4,800.00			366.17	1.46
Hefei Dite Renewable Energy Co., Ltd.	2020-6-30	2,310.00	2,310.00	Remark 1	2,309.97	-0.03	Remark 3	918.20	536.63
Hefei Kaiji Renewable Energy Co., Ltd.	2020-6-30	2,460.00	2,460.00	Remark 1	2,459.99	-0.01	Remark 3	882.62	469.91

Name of company	Combination date	Book net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to the end of the period	Net profit of the acquiree from the acquisition date to the end of the period
			Amount	Determination method		Amount	Determination method		
Susong Lingyang New Energy Co., Ltd.	2020-12-31	7,840.00	7,840.00	Remark 1	7,840.00				
Yushe County Huasheng Power Generation Co., Ltd.	2020-1-31	8,350.00	8,790.30	Remark 1	8,350.00	-440.30	Remark 3	2,397.93	368.73
Laizhou Shengyang New Energy Co., Ltd.	2020-8-31	11,352.00	11,731.52	Remark 1	11,352.00	-379.52	Remark 3	2,296.96	561.17
Yushe County Huaguang Power Generation Co., Ltd.	2020-1-31	8,350.00	8,690.38	Remark 1	8,350.00	-340.38	Remark 3	2,475.29	490.04
Ningxia Liancheng Photovoltaic Power Generation Co., Ltd.	2020-12-31	59.29		Remark 1					
Yongning County Derunyuan New Energy Co., Ltd.	2020-12-31	492.11	53.43	Remark 1		-53.43	Remark 3		
Yongning Defu New Energy Co., Ltd.	2020-12-31	257.46	180.75	Remark 1		-180.75	Remark 3		
Shizuishan JA New Energy Technology Co., Ltd.	2020-7-31			Remark 2					
Yongning Deguang New Energy Co., Ltd.	2020-12-31	174.13	111.10	Remark 1		-111.10	Remark 3		
Wuzhong Hongsibao District Qihuang New Energy Development Co., Ltd.	2020-7-31	3,819.91		Remark 1				962.06	23.01
Yinchuan JA New Energy Technology Co., Ltd.	2020-7-31			Remark 2					

Name of company	Combination date	Book net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to the end of the period	Net profit of the acquiree from the acquisition date to the end of the period
			Amount	Determination method		Amount	Determination method		
Ningxia Yanchi Tongshang New Energy Co., Ltd.	2020-12-31	587.72	941.28	Remark 1	468.95	-472.33	Remark 3		
Tianneng Power Investment (Beijing) New Energy Technology Co., Ltd.	2020-11-30	162.29	162.29	Remark 1	160.00	-2.29	Remark 3	30.04	-10.92
Yunhe China Machine Energy Co., Ltd.	2020-12-31	4,147.80	4,060.00	Remark 1	4,060.00			2,623.66	498.70
Quzhou Hangkai New Energy Technology Co., Ltd.	2020-12-31	15.20	-100.00	Remark 1	-100.00			2,759.00	374.50
Tongchuan Meiguang Solar Power Co., Ltd.	2020-7-31	10,218.21	10,725.70	Remark 1	7,012.40			1,560.36	146.70
Shaoguan Yueyang New Energy Technology Co., Ltd.	2020-3-31	1,724.41	1,724.41	Remark 1	1,207.09			485.96	208.68
Lechang Jinyang New Energy Power Generation Co., Ltd.	2020-3-31	10,256.86	10,256.86	Remark 1	7,123.50			1,638.75	726.31
Xi'an Zerui Nengke Photovoltaic Co., Ltd.	2020-12-31	77.00	77.00	Remark 1	46.20				
Nanning Jinfu Power Co., Ltd.	2020-12-1	3,059.92	4,772.87	Remark 1	4,772.87				
Shanglin Xiexin Photovoltaic Power Co., Ltd.	2020-12-1	12,799.43	12,923.30	Remark 1	12,923.30				
Qinzhou Xinjin Photovoltaic Power Co., Ltd.	2020-12-1	13,636.05	12,756.89	Remark 1	12,756.89				
Qinzhou Xin'ao Photovoltaic Power Co., Ltd.	2020-7-1	199.90	119.94	Remark 1	71.90				

Name of company	Combination date	Book net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to the end of the period	Net profit of the acquiree from the acquisition date to the end of the period
			Amount	Determination method		Amount	Determination method		
Hainan Tianlike New Energy Project investment Co., Ltd.	2020-12-31	8,322.23	8,292.24	Remark 1	5,804.56				
Xingning Yangxing Solar Power Generation Co., Ltd.	2020-5-11	20,419.00	20,419.00	Remark 1	14,293.30			1,224.67	1,195.52
Lianzhou Shenya New Energy Technology Co., Ltd.	2020-4-17	2,372.00	2,372.00	Remark 1	1,660.40			270.52	173.00
Yangchun Juyang New Energy Power Generation Co., Ltd.	2020-12-04	100.00	100.00	Remark 1	60.00				
Qianxi Nanzhou Fengyang New Energy Power Generation Co., Ltd.	2020-12-28	3,671.00	3,647.11	Remark 1	3,526.97				
Qianxi Nanzhou Shuoyang New Energy Power Generation Co., Ltd.	2020-12-25			Remark 2					
Qianxi Nanzhou Zhonghong New Energy Power Generation Co., Ltd.	2020-12-31	6,064.00	6,040.00	Remark 1	3,501.93				
Xingren Yamadun New Energy Co., Ltd.	2020-4-26	3,934.88	3,823.95	Remark 1	2,676.77			1,481.98	314.76
Qianxi Nanzhou Yilong Zhonghong Green Energy Co., Ltd.	2020-4-27	7,268.12	7,083.82	Remark 1	4,958.67			3,359.54	925.13

Name of company	Combination date	Book net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to the end of the period	Net profit of the acquiree from the acquisition date to the end of the period
			Amount	Determination method		Amount	Determination method		
Qianxi Nanzhou Longyang New Energy Power Generation Co., Ltd.	2020-3-27	7,071.25	6,941.83	Remark 1	4,859.28			2,156.30	392.76
Guizhou Qianguangzhao Development Co., Ltd.	2020-3-31	4,506.20	4,458.09	Remark 1	3,120.66				
Liupanshui Xingyang New Energy Power Generation Co., Ltd.	2020-12-30	7,071.00	7,065.39	Remark 1	7,027.31				
Bijie Huiyang New Energy Power Generation Co., Ltd.	2020-4-30	8,497.94	8,388.05	Remark 1	5,871.64			2,096.41	331.08
Dayao Ruihong New Energy Development Co., Ltd.	2020-1-1	-9.66	45.84	Remark 1	23.38			1,541.32	351.57
Guzhen Aikang Photovoltaic New Energy Co., Ltd.	2020-9-30	4,661.32	2,433.76	Remark 1	2,370.75	-63.01	Remark 3	406.25	17.29
Chongren Aikang New Energy Technology Co., Ltd.	2020-4-30	2,253.26		Remark 1				1,177.35	251.26
Mingguang Aikang Power Development Co., Ltd.	2020-9-30	1,778.53	170.55	Remark 1				195.55	22.17
Xunwu Aikang New Energy Technology Co., Ltd.	2020-4-30	7,394.32	3,641.00	Remark 1	3,641.00			1,736.78	133.06
Shayang County Jinyuan New Energy Co., Ltd.	2020-6-30	66.00	66.00	Remark 1	46.20			1,157.44	708.82

Name of company	Combination date	Book net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to the end of the period	Net profit of the acquiree from the acquisition date to the end of the period
			Amount	Determination method		Amount	Determination method		
Wuxue Jincan New Energy Co., Ltd.	2020-6-30	100.00	100.00	Remark 1	70.00			1,648.99	1,008.81
Shayang County Jinfu Solar Power Co., Ltd.	2020-6-30	150.00	150.00	Remark 1	105.00			1,535.99	935.98
Dongguan Lvlong Clean Energy Co., Ltd.	2020-11-30	1,167.71	836.40	Remark 1	423.63	-161.85	Remark 3	161.23	-90.06
Leizhou Zhongji Electric Power Co., Ltd.	2020-11-30	1,025.66	618.69	Remark 1	382.51	-50.58	Remark 3	146.59	-124.66
Qingtian Bei'an New Energy Technology Co., Ltd.	2020-11-18	778.43	778.43	Remark 1		-544.90	Remark 3	146.50	18.25
Inner Mongolia Hongjing Environmental Protection Technology Co., Ltd.	2020-7-31	3,121.55	3,866.67	Remark 1	2,706.67	521.58	Remark 3		
Guangxi Rongtai Polymerization New Energy Technology Co., Ltd.	2020-6-30	349.87	339.69	Remark 1					
Fuzhou Dongxiang Jiuxin New Energy Co., Ltd.	2020-3-31	257.27	257.27	Remark 1	128.00	-52.09	Remark 3	757.23	335.31
Le'an County Jiyang PV Power Co., Ltd.	2020-3-31	896.74	896.74	Remark 1	583.02	-44.70	Remark 3	1,137.23	627.17
Jiangxi Jiuxin New Energy Co., Ltd.	2020-3-31	1,390.17	1,470.05	Remark 1	1,009.79	-19.25	Remark 3	675.28	284.18
Jiyuan Tianshun New Energy Co., Ltd.	2020-3-31	9,191.08	10,263.73	Remark 1	9,723.92	-539.81	Remark 3	2,645.94	554.20
Qianshan County Jingtai Photovoltaic Power Co., Ltd.	2020-5-31	11,466.72	12,556.12	Remark 1	7,481.00	-1,308.29	Remark 3	2,557.40	857.29

Name of company	Combination date	Book net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to the end of the period	Net profit of the acquiree from the acquisition date to the end of the period
			Amount	Determination method		Amount	Determination method		
Taihe County Zhanyu Photovoltaic Power Co., Ltd.	2020-3-31	3,623.48	3,623.48	Remark 1	2,413.19	-123.25	Remark 3	2,370.73	769.84
Guangchang County Jiyang PV Power Co., Ltd.	2020-3-31	578.30	578.30	Remark 1	334.73	-70.08	Remark 3	1,202.91	555.20
Sanyi Nayong New Energy Co., Ltd.	2020-3-31	15,149.93	25,656.46	Remark 1	24,551.56	-1,104.90	Remark 3	7,008.00	3,774.23
Gaotang Longhong New Energy Co., Ltd.	2020-12-31			Remark 2					
Shandong Zhongjing Nengtou New Energy Development Co., Ltd.	2020-12-31			Remark 2					
Weifang Huaxu Solar Photovoltaic Agriculture Co., Ltd.	2020-12-31	3,545.70	1,930.49	Remark 1	1,330.82	-599.67	Remark 3		
Weifang Guanggu Agro-Ecological Park Co., Ltd.	2020-12-31	1,916.80	1,255.08	Remark 1	851.38	-403.70	Remark 3		
Anqiu Guangneng New Energy Co., Ltd.	2020-12-31	98.65	98.65	Remark 1	17.80	-80.85	Remark 3		
Hunan Jisheng New Energy Co., Ltd.	2020-12-31			Remark 2					
Guangxi Wozhong Investment Co., Ltd.	2020-6-30	9,490.91	490.84	Remark 1	490.84			268.06	113.45
Changzhou Tianqing New Energy Co., Ltd.	2020-12-31	99.73	99.73	Remark 1	85.96	-13.77	Remark 3		
Zhangbei Herun Energy Co., Ltd.	2020-1-1	22,074.03	42,792.19	Remark 1	20,816.00	-1,008.01	Remark 3	17,909.51	7,336.80

Name of company	Combination date	Book net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to the end of the period	Net profit of the acquiree from the acquisition date to the end of the period
			Amount	Determination method		Amount	Determination method		
Urumqi Haoneng Guangyang Power Generation Co., Ltd.	2020-9-30			Remark 2					
Daqing Heqing New Energy Technology Co., Ltd.	2020-1-31	10,720.61	10,720.61	Remark 1	8,100.00	-2,620.61	Remark 3	3,149.18	1,806.41
Wangqing County Zhenfa Investment Co., Ltd.	2020-12-31	30,759.76	29,697.53	Remark 1	20,160.00	-628.27	Remark 3		
Tibet Peide Energy Technology Co, Ltd.	2020-12-31	838.56	838.56	Remark 1	82.88	-344.79	Remark 3		
Lingshou County Green Light Technology Co., Ltd.	2020-8-31			Remark 2					
Zhongwei Hengjiweiye Photovoltaic Power Co., Ltd.	2020-8-31	15,940.81	10,604.63	Remark 1	9,100.00		Remark 3	1,235.76	-274.78
Inner Mongolia Fenghui Wind Power Co., Ltd.	2020-11-30	45,934.79	46,013.55	Remark 1	41,287.18	-125.01	Remark 3		2.87
Yuanmou Hongying New Energy Power Generation Co., Ltd.	2020-1-31	198.77	198.77	Remark 1					
Awati Huaguang Photovoltaic Power Generation Co., Ltd.	2020-10-31	5,661.82	5,196.11	Remark 1	4,824.07	-372.04	Remark 3	373.18	-0.51
Ningxia Zhongzi Clean Energy Co., Ltd.	2020-11-30	30,294.03	28,217.10	Remark 1	28,000.00	-97.84	Remark 3	851.43	-14.89
Suzhou Huixin New Energy Technology Co., Ltd.	2020-11-30	2,092.40	2,806.73	Remark 1	1,992.76	-252.62	Remark 3	117.77	40.81

Name of company	Combination date	Book net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to the end of the period	Net profit of the acquiree from the acquisition date to the end of the period
			Amount	Determination method		Amount	Determination method		
Nilka County Zhongli Tenghui Photovoltaic Power Generation Co., Ltd.	2020-12-31	4,414.00	4,850.73	Remark 1	4,468.00	-382.73	Remark 3	294.19	4.01
Fuhai Aifeisheng Energy Development Co., Ltd.	2020-12-31	4,334.00	7,289.61	Remark 1	4,910.00	-2,379.61	Remark 3	285.60	4.33
Turpan Huabei Tenghui Photovoltaic Power Generation Co., Ltd.	2020-12-31	9,036.00	10,072.41	Remark 1	7,880.00	-2,192.41	Remark 3	554.16	62.89
Yili Xinhui Photovoltaic Power Generation Co., Ltd.	2020-12-31	4,603.73	5,263.31	Remark 1	4,632.16	-631.15	Remark 3	277.61	4.45
Chifeng JA Photovoltaic Power Generation Co., Ltd.	2020-11-30	12,628.54	12,628.54	Remark 1	11,340.68			359.29	202.78
Dunhuang JA Photovoltaic Power Development Co., Ltd.	2020-11-30	33,168.32	33,168.32	Remark 1	15,897.47			879.02	266.83
Jarud Banner JA Photovoltaic Power Generation Co., Ltd.	2020-12-1	6,471.48	6,471.48	Remark 1	6,470.92			107.46	52.51
Xi'an Lvlong Clean Energy Co., Ltd.	2020-9-30	9,345.00	9,345.00	Remark 1	6,541.50				
Xi'an Shenglong New Energy Co., Ltd.	2020-9-30	9,765.00	9,765.00	Remark 1	6,835.50				
Xi'an Ruicheng Longtai New Energy Co., Ltd.	2020-9-30	11,294.00	11,294.00	Remark 1	12,429.54			708.61	-865.83

Name of company	Combination date	Book net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to the end of the period	Net profit of the acquiree from the acquisition date to the end of the period
			Amount	Determination method		Amount	Determination method		
Ningxia Jiayang New Energy Technology Development Co., Ltd.	2020-9-30			Remark 2					
Ningxia Haobo New Energy Technology Co., Ltd.	2020-9-30			Remark 2					
Ningxia Huituo New Energy Technology Co., Ltd.	2020-9-30			Remark 2					
Ningxia Xuning Power Co., Ltd.	2020-6-30			Remark 2					
Qingyun Shangde Wind Power Generation Co., Ltd.	2020-12-31	12,600.26	12,600.26	Remark 1	7,812.56				
Jiangsu Jiusi Investment Co., Ltd.	2020-6-30	93,396.30	93,396.30	Remark 1	27,084.93			9,977.24	2,708.39
Zuma Energia SA de CV	2020-11-18	21,917.06	21,917.06	Remark 1	340,768.82	318,851.76	Remark 3	6,279.76	5,878.48

Remark 1: The method for recognizing the fair value of identifiable net assets: based on the valuation results of the appraisal report;

Remark 2: The book value of net assets is small, and the book value of net assets is used as the fair value of identifiable net assets;

Remark 3: The method for recognizing goodwill: the difference of the combination cost in excess of the fair value of the acquiree's identifiable net assets;

Remark 4: Arrangements for contingent consideration: There were no arrangements for contingent consideration in the business combinations not under common control in 2020.

7.7 Changes in share of owner's equity of the parent company in subsidiaries

Name of subsidiary	Shares held as at January 1, 2020 (%)	Shares held as at December 31, 2020 (%)	Changes in shares held (%, - if decreased)	Reason for changes in shares held
Shanghai Electric Power Co., Ltd.	52.25	54.25	2.00	Acquisition of partial equity in 2020
SPIC Beijing Electric Power Co., Ltd.	100.00	55.15	-44.85	Introduction of strategic investor
State Nuclear Power Technology Corporation	90.01	91.67	1.66	Acquisition of equity from minority shareholders
China United Gas Turbine Technology Co., Ltd.	64.00	71.70	7.70	The proportion of capital increase is different

8 Notes to significant items to the consolidated financial statements

Unless otherwise stated, for the following items, the monetary unit is RMB; the term "beginning of the period" refers to January 1, 2020, the term "end of the period" refers to December 31, 2020, the term "last year" refers to the year 2019 and the term "current year" refers to the year 2020.

8.1 Monetary funds

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Cash on hand	10,149,051.59	2,165,080.22
Bank deposits	21,198,169,924.87	24,839,530,651.91
Other monetary funds	2,138,900,782.87	3,387,721,449.57
Total	23,347,219,759.33	28,229,417,181.70
Including: total amount of deposit abroad	2,909,120,078.27	7,295,426,761.71

Details of restricted cash and cash equivalents as follows:

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Bank acceptance bill deposit	405,829,424.56	792,806,570.77
L/C deposits	502,081,324.99	566,700,115.39
Performance bond	528,301,714.92	277,531,637.03
Time deposit or call deposit used for guarantee	96,753,341.77	124,686,873.51
Statutory reserve deposited in central bank	2,328,401,573.84	1,895,376,942.22
Others	308,099,012.28	379,052,527.89
Total	4,169,466,392.36	4,036,154,666.81

8.2 Financial assets held for trading

Item	Fair value as at December 31, 2020	Fair value as at January 1, 2020
1. Financial assets classified as measured at fair value through the current profit or loss	13,054,546,639.76	9,337,138,036.24

Item	Fair value as at December 31, 2020	Fair value as at January 1, 2020
Including: debt instrument investments	5,502,570,021.49	4,255,416,883.80
Equity instrument investments	4,190,020,522.38	2,627,509,929.56
Others	3,361,956,095.89	2,454,211,222.88
2. Financial asset designated to be measured by fair value through current profit or loss		
Including: debt instrument investments		
Others		
Total	13,054,546,639.76	9,337,138,036.24

8.3 Financial assets measured at fair value through the current profit or loss

Item	Fair value as at December 31, 2020	Fair value as at January 1, 2020
1. Financial assets held for trading	34,298,261.87	23,650,055.08
Including: debt instrument investments		
Investment in equity instruments	34,298,261.87	23,650,055.08
Others		
2. Financial asset designated to be measured by fair value through current profit or loss	1,432,103,407.11	872,079,800.33
Including: debt instrument investments		
Investment in equity instruments		
Others	1,432,103,407.11	872,079,800.33
Total	1,466,401,668.98	895,729,855.41

8.4 Derivative financial assets

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Futures	13,029,975.00	
Hedging instruments		31,713,375.00
Hedge instrument for financial assets of overseas companies	612,700,413.66	82,295,221.43
Total	625,730,388.66	114,008,596.43

8.5 Notes receivable

8.5.1 Presentation of notes receivable by category

Category	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance	Provision for bad debts	Book value	Book balance	Provision for bad debts	Book value
Bank acceptance bills	12,286,976,631.71		12,286,976,631.71	12,096,674,778.88		12,096,674,778.88
Commercial acceptance bills	3,026,359,898.14	669,510.00	3,025,690,388.14	1,972,900,652.61		1,972,900,652.61
Total	15,313,336,529.85	669,510.00	15,312,667,019.85	14,069,575,431.49		14,069,575,431.49

8.5.2 Pledged notes receivable as at December 31, 2020

Category	Pledged amount as at December 31, 2020
Bank acceptance bills	119,713,057.83
Total	119,713,057.83

8.5.3 Notes receivable endorsed or discounted as at December 31, 2020 but not expired on the balance sheet date

Category	Amount derecognized as at December 31, 2020	Amount not derecognized as at December 31, 2020
Bank acceptance bills	13,228,675,602.83	107,132,258.75
Commercial acceptance bills	35,892,642.86	
Total	13,264,568,245.69	107,132,258.75

8.5.4 Notes that are transferred into accounts receivable as the issuer fails to keep a promise as at December 31, 2020

Category	Amount transferred to account receivable as at December 31, 2020
Bank acceptance bills	
Commercial acceptance bills	720,280.00
Total	720,280.00

8.6 Accounts receivable

Type	Balance as at December 31, 2020					Balance as at January 1, 2020				
	Book balance		Provision for bad debts		Book value	Book balance		Provision for bad debts		Book value
	Amount	Proportion (%)	Amount	Proportion of provision (%)		Amount	Proportion (%)	Amount	Proportion of provision (%)	
Accounts receivable with individually significant amount and individual provision for bad debts	470,986,060.40	0.73	424,269,172.08	90.08	46,716,888.32	632,493,732.68	1.25	426,486,532.51	67.43	206,007,200.17
Accounts receivable with the provision for bad debts made on a portfolio with credit risk characteristics (applicable in old and new standards)	63,281,667,140.27	98.55	693,491,855.63	1.10	62,588,175,284.64	49,550,492,828.75	98.20	583,159,225.44	1.18	48,967,333,603.31
Accounts receivable with individually insignificant amount and individual provision for bad debts	123,657,284.18	0.19	104,895,314.15	84.83	18,761,970.03	76,004,436.21	0.15	52,079,900.15	68.52	23,924,536.06
Receivables provided for bad debts on an individual basis (applicable in new standards)	339,696,666.64	0.53	208,185,242.70	61.29	131,511,423.94	200,283,545.89	0.40	150,172,918.91	74.98	50,110,626.98
Total	64,216,007,151.49	100.00	1,430,841,584.56		62,785,165,566.93	50,459,274,543.53	100.00	1,211,898,577.01		49,247,375,966.52

Disclosure of accounts receivable by category of accounts receivable under the methods of provision for bad debts (applicable in new standards)

Type	Balance as at December 31, 2020					Balance as at January 1, 2020				
	Book balance		Provision for bad debts		Book value	Book balance		Provision for bad debts		Book value
	Amount	Proportion (%)	Amount	Expected credit loss rate (%)		Amount	Proportion (%)	Amount	Expected credit loss rate (%)	
Accounts receivable with individual provision for bad debts	339,696,666.64	1.30	208,185,242.70		131,511,423.94	200,283,545.89	1.16	150,172,918.91		50,110,626.98
Accounts receivable with provision for bad debts made by portfolio	25,803,348,602.41	98.70	299,147,465.10		25,504,201,137.31	17,182,077,958.98	98.84	270,775,294.01		16,911,302,664.97
Including:										
Portfolio with credit risk	2,054,837,885.01	7.86	299,147,465.10			2,467,309,616.98	14.19	258,588,696.83		
Portfolio with low risk	23,748,510,717.40	90.84			23,748,510,717.40	14,714,768,342.00	84.65	12,186,597.18		14,702,581,744.82
Total	26,143,045,269.05	100.00	507,332,707.80		25,635,712,561.25	17,382,361,504.87	100.00	420,948,212.92		16,961,413,291.95

8.6.1 Accounts receivable with individually significant amount and individual provision for bad debts as at December 31, 2020

Name of debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
Yunnan Hengan Electric Metallurgy Co., Ltd.	257,337,130.11	257,337,130.11	3-5 years	100.00	Has won the lawsuit and no executable property
China United International Trade (Beijing) Aluminum Co., Ltd.	39,368,073.73	39,368,073.73	Over 3 years	100.00	Irrecoverable
Beijing China Coal Shuntong International Trade Co., Ltd.	31,709,748.58	31,709,748.58	Over 3 years	100.00	Irrecoverable
Fushun Liaodian Thermal Co., Ltd.	23,684,689.73	1,949,700.35	1-3 years	8.23	Difficult to be partially recoverable
Shanxi Linfen Thermal Power Co., Ltd.	1,182,676.50	1,182,676.50	Over 5 years	100.00	Quality guarantee deposit cannot be recovered
Houma Power Generation Branch of Shanxi Zhangze Electric Power Co., Ltd.	617,000.00	617,000.00	Over 5 years	100.00	Quality guarantee deposit cannot be recovered
Nayong Jinneng Coal Development Co., Ltd.	70,000.00	70,000.00	Over 5 years	100.00	Quality guarantee deposit cannot be recovered
State Grid Energy Hefeng Coal and Electricity Co., Ltd.	48,444,628.30	24,222,314.15	4-5 years	50.00	Difficult to be partially recoverable
CPI Beibuwan (Guangxi) Cogeneration Co., Ltd.	10,613,233.60	10,613,233.60	2-3 years	100.00	Irrecoverable

Name of debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
Huocheng Coal-to-Gas Branch of CPI Yili Coal Chemical Co., Ltd.	4,650,000.00	4,650,000.00	2-3 years	100.00	Irrecoverable
Jiangxi SPIC Xinchang Power Generation Co., Ltd.	900,000.00	900,000.00	2-3 years	100.00	Irrecoverable
Nanjing Duchen Investment Management Co., Ltd.	46,040,962.98	46,040,962.98	Over 5 years	100.00	The possibility of recovery is low upon litigation.
Wu Yuanjun from Inner Mongolia Huayu Coal Transportation and Marketing Co., Ltd.	4,248,747.30	4,248,747.30	Over 5 years	100.00	The possibility of recovery is low.
Tongliao Wanshunda Starch Co., Ltd.	1,519,169.57	759,584.78	Over 5 years	50.00	Overdue heat fee receivable
The People's Court of Changping District, Beijing	600,000.00	600,000.00	Over 5 years	100.00	The possibility of recovery is extremely low.
Total	470,986,060.40	424,269,172.08			

8.6.2 Accounts receivable with the provision for bad debts made on a portfolio with credit risk characteristics

(1) Accounts receivable subject to provision for bad debts made with aging analysis method

Aging	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance		Provision for bad debts	Book balance		Provision for bad debts
	Amount	Proportion (%)		Amount	Proportion (%)	
Within 1 year (including 1 year)	3,675,689,664.55	70.60	82,703,474.32	5,197,435,847.05	78.95	73,615,659.31
1 - 2 years	904,661,631.02	17.38	148,819,050.22	631,494,134.63	9.59	49,099,065.89
2 - 3 years	147,078,064.96	2.83	36,442,480.08	226,332,638.70	3.44	27,120,485.44
Over 3 years	478,500,652.57	9.19	425,526,851.01	528,118,656.95	8.02	421,137,417.62
Total	5,205,930,013.10	100.00	693,491,855.63	6,583,381,277.33	100.00	570,972,628.26

(2) Accounts receivable with provision for bad debts accrued by other portfolio methods

Name of portfolio	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance	Proportion of provision (%)	Provision for bad debts	Book balance	Proportion of provision (%)	Provision for bad debts
Portfolio with low risk	58,075,737,127.17			42,967,111,551.42	0.03	12,186,597.18
Total	58,075,737,127.17			42,967,111,551.42		12,186,597.18

8.6.3 Accounts receivable with individually insignificant amount and individual provision for bad debts as at December 31, 2020

Name of debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
Inner Mongolia Electric Power (Group) Co., Ltd.	17,645,328.42	17,645,328.42	1-2 years, 3-4 years	100.00	Expected to be irrecoverable
Turpan Ruide Chemical and Light Industry Co., Ltd.	6,110,770.83	6,110,770.83	Over 5 years	100.00	Expected to be irrecoverable
Guizhou Bohong Industrial Co., Ltd. Hezhang Mining Company	4,542,805.14	4,542,805.14	Over 5 years	100.00	Irrecoverable
Inner Mongolia Huayu Coal Transportation and Marketing Co., Ltd.	4,248,747.30	4,248,747.30	Over 5 years	100.00	The possibility of recovery is low.
Chaoyang County Construction Management Committee	4,185,211.56	2,092,605.78	3-4 years	50.00	Expected to be irrecoverable
State Grid Gansu Power Co., Ltd.	3,377,393.65	3,377,393.65	Over 3 years	100.00	Expected to be irrecoverable
Heat fee receivable	3,302,243.90	3,183,346.52	1-5 years or more	96.40	Expected to be irrecoverable
Ningxia Import and Export Corporation Aluminum Plant Import and Export Department	2,561,211.74	2,561,211.74	Over 5 years	100.00	Irrecoverable
Chaoyang Tianfu Property Management Co., Ltd.	2,490,419.33	498,083.87	1-2 years	20.00	Expected to be irrecoverable
Resident heating fee	2,451,399.28	924,167.65	2-5 years or more	37.70	Expected to be irrecoverable
Zunyi Dinghong Trading Co., Ltd.	2,140,061.98	2,140,061.98	3-5 years	100.00	Expected to be irrecoverable
Chaoyang County Liucheng High School	2,035,114.50	1,017,557.25	3-4 years	50.00	Expected to be irrecoverable

Name of debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
Ningxia Lingwu Baota Dagu Warehousing and Transportation Co., Ltd.	2,000,000.00	2,000,000.00	2-3 years	100.00	Expected to be irrecoverable
Chaoyang Experimental High School	1,763,865.60	881,932.80	3-4 years	50.00	Expected to be irrecoverable
State Grid East Inner Mongolia Electric Power Company Limited	1,728,243.53	1,728,243.53	Over 3 years	100.00	Expected to be irrecoverable
Luodian Power Supply Bureau	1,530,851.90	1,530,851.90	Over 5 years	100.00	Irrecoverable
Tongliao Wanshunda Starch Co., Ltd.	1,519,169.57	759,584.78	Over 5 years	50.00	Overdue heat fee receivable
Ningxia Baota Energy Chemical Co., Ltd.	1,500,000.00	1,500,000.00	2-3 years	100.00	Expected to be irrecoverable
Qianxi Xinghe Renewable Building Materials Industry and Trade Co., Ltd.	1,407,114.87	1,407,114.87	Over 5 years	50.00	Expected to be irrecoverable
Zunyi Nanjiang Trading Co., Ltd.	1,259,881.49	1,259,881.49	Over 5 years	100.00	Irrecoverable
Hunan Jinxin Chemical Industry Co., Ltd.	1,076,395.01	921,169.32	Over 5 years	85.58	The bad debts of the sales subsidiary were consolidated by absorption during the year; the actual aging was more than 5 years, and the bad debts were not recoverable, and the provision for bad debts was made in accordance with the system requirements under the single test
Chaoyang Tianfu Property Management Co., Ltd.	1,006,434.51	933,239.27	3-4 years	92.73	Expected to be irrecoverable
Ningxia Baota Energy Chemical Co., Ltd.	1,000,000.00	1,000,000.00	2-3 years	100.00	Expected to be irrecoverable
Total amount	54,293,789.64	43,390,800.84		79.92	
Total	125,176,453.75	105,654,898.93			

8.6.4 Accounts receivable with individual provision for bad debts as at December 31, 2020

Name of debtor	Book balance	Provision for bad debts	Expected credit loss rate (%)	Reason for provision
Shanghai Linxi Industrial Co., Ltd.	126,975,807.92	77,033,763.32	60.67	Expected to be irrecoverable
Henan Zhongfu Power Co., Ltd.	65,879,253.37	18,066,900.00	27.42	Counterpart's bankruptcy and restructuring
Tangu Village Committee	29,311,768.11	29,311,768.11	100.00	Expected to be irrecoverable
Xinjiang Huadian Changji Thermal Power Phase II Co., Ltd.	23,730,963.20	5,463,232.24	23.02	Expected to be irrecoverable
Singapore Zhongjun Resources Limited	20,506,184.00	20,506,184.00	100.00	Expected to be irrecoverable
Lanzhou Xigu Thermal Power Co., Ltd.	13,378,550.66	13,378,550.66	100.00	Expected to be irrecoverable
State Grid Jilin Electric Power Co., Ltd.	11,758,195.70	11,758,195.70	100.00	Expected to be irrecoverable
Inner Mongolia Huayi Zhuozi Thermal Power Co., Ltd.	8,194,698.95	249,067.71	3.04	Lawsuit-related
Shimen Community	3,766,896.53	3,766,896.53	100.00	Expected to be irrecoverable
Daming Paper Mill	2,795,591.17	2,795,591.17	100.00	Expected to be irrecoverable
Jiyan Development	2,178,162.56	2,178,162.56	100.00	Expected to be irrecoverable
Shijiazhuang Changrong Property Management Co., Ltd. (Dehong Real Estate)	1,180,600.70	1,180,600.70	100.00	Expected to be irrecoverable
Shijiazhuang Yuma Property Management Center (Zone 1)	1,008,514.67	1,008,514.67	100.00	Expected to be irrecoverable
State Grid Shanghai Municipal Electric Power Company	979,778.80	979,778.80	100.00	Expected to be irrecoverable
Shijiazhuang Baoshi Color Glass Envelope Co., Ltd.	972,159.85	972,159.85	100.00	Expected to be irrecoverable
Songyang Finance Bureau	672,325.80	672,325.80	100.00	Expected to be irrecoverable

Name of debtor	Book balance	Provision for bad debts	Expected credit loss rate (%)	Reason for provision
Shijiazhuang Baifo Industrial Co., Ltd. 3	657,278.14	657,278.14	100.00	Expected to be irrecoverable
Changxing Finance Bureau	573,408.00	573,408.00	100.00	Expected to be irrecoverable
Henghui Property (Kaihua Real Estate)	524,230.61	524,230.61	100.00	Expected to be irrecoverable
Lianqiang Community	473,741.81	473,741.81	100.00	Expected to be irrecoverable
Tiantai Finance Bureau	428,254.92	428,254.92	100.00	Expected to be irrecoverable
Taizhou Finance Bureau	415,950.00	415,950.00	100.00	Expected to be irrecoverable
Shijiazhuang Tiantong Light Industry Machinery Co., Ltd.	378,819.28	378,819.28	100.00	Expected to be irrecoverable
Huayin Electric Power Co., Ltd.	334,880.00	334,880.00	100.00	Expected to be irrecoverable
Finance Bureau of Keqiao District, Shaoxing	325,556.00	325,556.00	100.00	Expected to be irrecoverable
Shijiazhuang Plastic General Factory	319,110.09	319,110.09	100.00	Expected to be irrecoverable
Jixing Real Estate Development Co., Ltd.	307,661.45	307,661.45	100.00	Expected to be irrecoverable
North China Pharmaceutical Group Co., Ltd. 3-2	303,872.27	303,872.27	100.00	Expected to be irrecoverable
Shanghai Waigaoqiao No.3 Power Generation Co., Ltd.	301,812.46	301,812.46	100.00	Expected to be irrecoverable
Total amount	21,062,639.62	13,518,975.85	64.18	Expected to be irrecoverable
Total	339,696,666.64	208,185,242.70		

8.6.5 Provision for bad debts recovered or reversed

Name of debtor	Amount reversed or recovered	Accumulated provision for bad debts before the reversal or recovery	Reason and method for reversal or recovery
Hu Jinlong	957,560.00	957,560.00	Recovery of payment
Zhejiang Huayuan Construction Group Co., Ltd.	622,838.94	622,838.94	Recovery of bank deposit
Shanghai Daily Energy Saving and	134,920.69	134,920.69	Judgment of the court

Name of debtor	Amount reversed or recovered	Accumulated provision for bad debts before the reversal or recovery	Reason and method for reversal or recovery
Environmental Protection Technology Co., Ltd.			
Shanxi Zhangze Power	250,000.00	250,000.00	The payment has been recovered
Total	1,965,319.63	1,965,319.63	

8.6.6 Accounts receivable actually written off in 2020

Name of debtor	Nature of accounts receivable	Charge-off amount	Reason for charge-off	Charge-off procedures performed	Whether it generates due to the related party transactions
Shanghai Wanli Dushi Enterprise Development Co., Ltd.	Heat cost	5,044,804.88	Company cancellation	Judgment of final instance	No
Subsidy receivable for electric charges	Subsidy for electric charges	3,656,924.00	Irrecoverable	Paper of Civil Mediation	No
Subsidy receivable for electric charges	Subsidy for electric charges	3,616,516.00	Irrecoverable	Resolution of the Party Committee	No
Heat charge of minor clients	Heat cost	1,519,731.33	Irrecoverable	Audit report of intermediaries	No
Heat fee receivable	Heat cost	1,374,208.29	Irrecoverable	Legal opinion, written off by the General Manager's Office upon resolution and reported to Northeast Company for the record-filing.	No
Fushun Aluminum Plant	Payment for sales of products	920,391.07	Irrecoverable	Legal opinion, written off by the General Manager's Office upon resolution and reported to Northeast Company for the record-filing.	No
Shenyang Electric Power Bureau Electric Cable Factory	Payment for goods	900,000.00	Irrecoverable	Debt restructuring agreement	No
Shanghai Huali Copperplate Paper Mill	Heat cost	667,830.35	Insolvency	According to the Civil Judgment [(2020) L 0204 MC No. 692] of Shahekou District People's Court of Dalian, the court ruled rejection of the litigation request	No
Harbin Boiler Company Limited	Sales of products	506,300.00	Irrecoverable	According to the Civil Judgment [(2020) L 0204 MC No. 2066] of Shahekou District People's Court of Dalian, the court ruled rejection of the litigation request	No
Shanghai Desheng Property Management Co., Ltd.	Heat cost	493,551.06	Company cancellation	According to the Civil Judgment [(2020) L 0212 MC No. 244] of Lvshunkou District People's Court of Dalian, the court ruled rejection of the litigation request	No
Jiangsu Yongpeng Technology Industry Co., Ltd.	Heat cost	442,362.08	Irrecoverable	Legal opinion of Liaoning Yusheng Law Firm	No

Name of debtor	Nature of accounts receivable	Charge-off amount	Reason for charge-off	Charge-off procedures performed	Whether it generates due to the related party transactions
Shijiazhuang Huabao Property Management Co., Ltd.	Heat cost	280,000.00	The other party refused to pay	According to the Civil Judgment [(2020) L 0204 MC No. 897] of Shahekou District People's Court of Dalian, the court ruled rejection of the litigation request	No
Shanghai Huazhong Ruihe Towel Co., Ltd.	Heat cost	107,622.52	Insolvency	Document (LXF [2017] No. 20) of Liaoning Province Flood Control and Drought Relief Command, and Document (LSHK [2017] No. 191) of Liaoning Provincial Department of Water Resources	No
Shanghai Feishun Property Management Co., Ltd.	Heat cost	97,345.97	Insolvency	Document (LXF [2017] No. 19) of Liaoning Province Flood Control and Drought Relief Command, and Document (LSHK [2017] No. 190) of Liaoning Provincial Department of Water Resources	No
Shanghai Shsmtyr Printing&Dyeing Co., Ltd.	Heat cost	75,898.38	Company cancellation	Judgment of the court	No
Dalian Anda Shunchang Materials Co., Ltd.	Brick payment	75,850.00	Irrecoverable	General Manager's Office	No
Aimeng Knitting Co., Ltd.	Heating fees	68,751.54	Irrecoverable	General Manager's Office	No
Pan Guozhong	Brick payment	60,160.00	Irrecoverable	General Manager's Office	No
Anshan Hengwei Aluminum Co., Ltd.	Payment for goods	59,383.22	The debtor has conducted the liquidation	General Manager's Office	No
Jilin Province Economic and Technical Exchange Center of Dalian Economic and Technological Development Zone	Heating fees	51,847.39	Irrecoverable	General Manager's Office	No
Shijiazhuang Yannan Trading Co., Ltd.	Heat cost	42,800.00	Counterparty’s responsible person is missing	General Manager's Office	No
Dalian Xinhuaxing Construction and Installation Engineering Company	Brick payment	26,640.00	Irrecoverable	General Manager's Office	No
Wusu Qingsong Building Materials Co., Ltd.	Gypsum sales	11,272.18	Bankruptcy and restructuring	General Manager's Office	No
Yonglai Building Materials	Brick payment	11,224.80	Irrecoverable	General Manager's Office	No
State Grid Jiangsu Electric Power Supply Co., Ltd.	Electric charges	9,303.73	Irrecoverable	Upon the General Manager's Office	No
Dalian Boxin Power Generation Equipment Plant	Brick payment	2,340.00	Irrecoverable	Upon the General Manager's Office	No

Name of debtor	Nature of accounts receivable	Charge-off amount	Reason for charge-off	Charge-off procedures performed	Whether it generates due to the related party transactions
Wuhan Bofan Material Trade Co., Ltd.	Current accounts	25,600.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Shanghai Blower Factory Products Business Department	Current accounts	4,200.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Huashun Power Generation Co., Ltd.	Current accounts	105.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Ordos Power Plant of Northern United Power Plant Co., Ltd.	Current accounts	39,000.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Siemens Industrial Automation Ltd. Shanghai	Current accounts	60,000.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Shanghai Turbine Generator Co., Ltd.	Current accounts	75,000.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Shanghai Hengyang Mechanical & Electrical Co., Ltd.	Current accounts	14,000.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Shandong Luneng Material Group Co., Ltd.	Current accounts	12,000.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Ningxia Baofeng Energy Group Co., Ltd.	Current accounts	285,600.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Datang Huichun Power Generation Co., Ltd.	Current accounts	12,000.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Dalkia (China) Energy Management Co., Ltd. Chengdu Branch	Current accounts	4,800.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Guodian Hunan Baoqing Coal Power Co., Ltd.	Current accounts	20,200.00	Irrecoverable losses beyond 3 years	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
China National Automotive Industry Guizhou IMP/EXP Co., Ltd.	Current accounts	20,000.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No

Name of debtor	Nature of accounts receivable	Charge-off amount	Reason for charge-off	Charge-off procedures performed	Whether it generates due to the related party transactions
CLP POWER CHINA LIMITED	Current accounts	20,000.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Zibo Diesel Engine Plant	Current accounts	47,535.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Shanghai Kangyuan Electric Co., Ltd.	Current accounts	36,000.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Kaifeng Guangming Power Generation Co., Ltd.	Current accounts	50,000.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Shanghai Tanghuan Industry & Trade Co., Ltd.	Current accounts	31,000.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Shanghai Jiongbo Electric Equipment Co., Ltd.	Current accounts	1,290,000.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Inner Mongolia Energy Power Generation Investment Co., Ltd. Zhunda Power Plant	Current accounts	60,120.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
SPIC Pacific Energy Pty Ltd	Electric charges	5,642,858.38	Irrecoverable	Written off at the amount of write-offs as approved by authorized management according to the provisions on internal control system	No
Total amount		5,106,419.17	Irrecoverable	Written off at the amount of write-offs as approved by authorized management according to the provisions on internal control system	No
Total		32,979,496.34			

8.6.7 Top 5 of accounts receivable as at December 31, 2020, presented by the debtors

Name of debtor	Book balance	Proportion in the total accounts receivables (%)	Provision for bad debts
State Grid Qinghai Electric Power Company	11,434,291,884.91	17.81	
State Grid Jiangsu Electric Power Supply Co., Ltd.	3,904,027,371.19	6.08	
State Grid Xinjiang Electric Power Co., Ltd.	3,676,628,055.77	5.73	

Name of debtor	Book balance	Proportion in the total accounts receivables (%)	Provision for bad debts
State Grid Jilin Electric Power Co., Ltd.	1,728,208,239.83	2.69	11,758,195.70
Inner Mongolia Electric Power (Group) Co., Ltd.	2,117,345,126.03	3.30	60,431,183.06
Total	22,860,500,677.73	35.61	72,189,378.76

8.6.8 Accounts receivable derecognized due to the transfer of financial assets

Name of debtor	Amount derecognized	Gains and losses related to derecognition ("-" for losses)
State Grid Henan Electric Power Company	1,504,057,870.87	-16,059,566.84
State Grid Shanghai Municipal Electric Power Company	1,445,360,923.66	-24,575,900.44
Inner Mongolia Electric Power (Group) Co., Ltd.	345,267,040.96	-10,978,720.43
State Grid Jiangsu Electric Power Co., Ltd.	321,909,528.73	-6,067,613.65
Shanghai Wujing Power Generation Co., Ltd.	250,000,000.00	-11,000,000.00
State Grid Shanxi Electric Power Company	220,354,658.36	-7,965,829.96
State Grid Xinjiang Electric Power Co., Ltd. Turpan Power Supply Company	197,342,448.40	-592,027.35
State Grid Hunan Electric Power Company Limited	149,056,893.53	-8,943,413.61
State Grid Xinjiang Electric Power Company Qitai Power Supply Company	131,014,899.36	-393,044.70
Urumqi Branch, China Merchants Bank Co., Ltd.	100,000,000.00	-273,888.89
State Grid Ningxia Electric Power Company	93,482,624.27	-1,063,907.46
East China Branch, State Grid Corporation of China	87,632,741.61	-2,136,805.56
State Grid Shandong Electric Power Company Binzhou Power Supply Company	76,904,437.37	-59,066.88
State Grid Xinjiang Electric Power Co., Ltd.	74,942,681.62	-5,812,258.68
State Grid Shandong Electric Power Company Yantai Branch	73,941,201.46	-56,790.95
State Grid Henan Electric Power Company	61,215,989.64	-183,647.97

Name of debtor	Amount derecognized	Gains and losses related to derecognition ("-" for losses)
State Grid Xinjiang Electric Power Co., Ltd. Mulei Power Supply Company	54,374,311.66	-163,122.93
State Grid Jiangsu Electric Power Co., Ltd. Lianyungang Power Supply Company	51,101,531.69	-153,304.60
State Grid Hubei Electric Power Co., Ltd.	46,572,816.82	-750,766.14
State Grid Shandong Electric Power Company Yantai Branch	31,197,072.23	-29,755.69
State Grid Zhejiang Electric Power Co., Ltd.	26,094,000.00	-1,112,862.50
Guoneng Xuzhou Power Generation Co., Ltd.	23,800,000.00	-180,483.33
Taicang Port Xiexin Power Generation Co., Ltd.	20,777,055.16	-157,559.34
Shanghai Datun Energy Corporation Jiangsu Branch	6,819,604.00	-51,715.33
Total	5,393,220,331.40	-98,762,053.23

8.7 Receivables financing

Category	Balance as at December 31, 2020	Balance as at January 1, 2020
Notes receivable	987,756,726.64	16,008,216.00
Accounts receivable	3,362,802,589.83	2,140,779,557.52
Total	4,350,559,316.47	2,156,787,773.52

8.8 Advances to suppliers

8.8.1 Presentation of advances to suppliers by aging

Aging	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance		Provision for bad debts	Book balance		Provision for bad debts
	Amount	Proportion (%)		Amount	Proportion (%)	
Within 1 year (including 1 year)	12,334,017,916.20	66.83	2,110,648.20	13,598,197,323.44	69.63	451,000.00
1 - 2 years	3,053,225,732.59	16.54	9,743,447.17	2,735,865,820.99	14.01	2,869,097.47
2 - 3 years	1,277,677,827.56	6.92	3,056,296.13	1,758,861,736.09	9.01	236,533.74
Over 3 years	1,793,162,033.38	9.71	109,507,797.68	1,436,090,500.87	7.35	109,251,850.67
Total	18,458,083,509.73	100.00	124,418,189.18	19,529,015,381.39	100.00	112,808,481.88

8.8.2 Advances to suppliers with large amount and aging of over 1 year

Creditor	Debtor	Balance as at December 31, 2020	Aging	Reason for no settlement
State Nuclear Power Engineering Company	WESTINGHOUSEELECTRICCOMPANY	1,578,196,164.18	1-3 years, over 3 years	Failure to reach the time for settlement
Shanghai Yuehe New Energy Technology Co., Ltd.	Shanxi Industrial Equipment Installation Group Co., Ltd.	140,145,100.00	1-2 years	Have not reached the settlement conditions
CPI Power Engineering Co., Ltd.	Anhui Electric Power Construction No.1 Engineering Company of CEEC	99,283,914.49	Over 3 years	Failure to reach the time for settlement
CPI Power Engineering Co., Ltd.	China Nuclear Industry Fifth Construction Co., Ltd.	99,083,139.24	2-3 years	Failure to reach the time for settlement
CPI Power Engineering Co., Ltd.	Harbin Electric Co., Ltd.	81,357,521.39	1-2 years	Failure to reach the time for settlement
State Nuclear Power Engineering Company	WestinghouseElectricCompanyLLC	78,666,827.97	2-3 years	Failure to reach the time for settlement
SPIC Mengdong Energy Co., Ltd.	Qingdao Dezheng Resources Holdings Limited	75,490,439.14	Over 5 years	Not yet settled
State Nuclear Power Engineering Company	FLOWSERVEUSINC	66,187,758.63	2-3 years	Failure to reach the time for settlement
Ruicheng Zhongdian Photovoltaic Power Generation Co., Ltd.	Ruicheng County National Ecological Civilization Advance Demonstration Zone Photovoltaic Base Project Leading Group Office	62,600,000.00	Over 3 years	Have not reached the settlement conditions
Shanxi China Power Shentou No.2 Power Generation Co., Ltd.	Alstom Beizhong Power (Beijing) Co., Ltd.	61,544,500.00	1-2 years	Have not reached the settlement conditions
CPI Power Engineering Co., Ltd.	Henan No.2 Construction Group Co., Ltd.	59,344,050.28	1-2 years	Failure to reach the time for settlement
Shanxi China Power Shentou No.2 Power Generation Co., Ltd.	Anhui No.1 Electric Power Construction Co., Ltd.	48,624,171.00	1-2 years	Have not reached the settlement conditions

Creditor	Debtor	Balance as at December 31, 2020	Aging	Reason for no settlement
China Power (Shangqiu) Thermal Power Co., Ltd.	PowerChina Henan Electric Power Survey and Design Institute Co., Ltd.	45,355,202.90	2-3 years	Have not reached the settlement conditions
China Power (Chengdu) Comprehensive Energy Co., Ltd.	Southwest Electric Power Design Institute Co., Ltd. of China Power Engineering Consulting Group	38,051,319.20	Over 2 years	Have not reached the settlement conditions
State Nuclear Power Engineering Company	FisherControlsInternationalLLC	32,630,626.20	2-3 years, over 3 years	Failure to reach the time for settlement
Shanxi China Power Shentou No.2 Power Generation Co., Ltd.	Beijing Boqi Electric Power Sci-tech Co., Ltd.,	31,840,537.00	1-2 years	Have not reached the settlement conditions
China Power (Shangqiu) Thermal Power Co., Ltd.	Shangqiu Urban and Rural Integration Demonstration Zone Management Committee	20,250,000.00	2-3 years	Have not reached the settlement conditions
Total		2,618,651,271.62		

8.8.3 Top 5 of advances to suppliers as at December 31, 2020, presented by the debtors

Name of debtor	Book balance	Proportion in total advances to suppliers (%)	Provision for bad debts
WESTINGHOUSE ELECTRIC COMPANY	2,011,533,016.12	10.90	
Curtiss-Wright Electro-Mechanical Corporation	609,485,562.56	3.30	
Harbin Electric Co., Ltd.	475,895,452.07	2.58	
Sany Heavy Energy Co., Ltd.	346,006,500.00	1.87	
Guangdong Sales Branch of CNOOC Gas & Electricity Group Co., Ltd.	268,941,143.28	1.46	
Total	1,090,843,095.35	5.91	

8.9 Other receivables

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Interest receivable	308,824,208.84	307,356,557.58
Dividends receivable	344,573,317.47	318,354,696.89

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Other receivables	20,291,060,967.15	19,018,143,991.52
Total	20,944,458,493.46	19,643,855,245.99

8.9.1 Interest receivable

(1) Classification of interest receivable

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Time deposits	82,971.22	8,122,043.02
Entrusted loans	124,765,401.06	127,346,541.00
Bond investments	2,458,209.29	2,471,192.10
Others	181,517,627.27	169,416,781.46
Total	308,824,208.84	307,356,557.58

8.9.2 Dividends receivable

Item	Balance as at December 31, 2020	Balance as at January 1, 2020	Reason for non-recovery	Whether impairment or not and the judgment basis
Dividends receivable with aging within one year	66,120,081.33	126,792,309.92		
Including: (1) Shanghai Donghai Wind Power Co., Ltd.	19,687,277.32	28,050,907.57	Not yet paid	No / in normal operation without impairment
(2) Jarud Banner Tiejin Transportation Co., Ltd.		42,161,000.00	Not yet paid	No / in normal operation without impairment
(3) Shanghai Yishan New Energy Technology Co., Ltd.	43,177,211.75	45,854,000.00	Not yet paid	No / in normal operation without impairment
(4) Libo Lidu Hydropower Development Co., Ltd.		7,000,000.00	Not yet paid	No / in normal operation without impairment
(5) (Dongteng) Fuxin Shengming Thermoelectricity Co., Ltd.		3,726,402.35	Not yet paid	No / in normal operation without impairment
(6) Chongqing Tongxing Rubbish Treatment Co., Ltd.	2,913,445.26		Not yet paid	No / in normal operation without impairment
(7) Stock dividends	342,147.00		Not yet paid	
Dividends receivable with the aging over one year	278,453,236.14	191,562,386.97		
Including: (1) Jarud Banner Tiejin Transportation Co., Ltd.	159,328,588.01	117,167,588.01	Not yet paid	No / in normal operation without impairment
(2) Shanghai Yishan New Energy Technology Co., Ltd.	45,854,000.00		Not yet paid	No / in normal operation without impairment
(3) Shanghai Donghai Wind Power Generation Co., Ltd.	28,050,907.57		Not yet paid	No / in normal operation without impairment

Item	Balance as at December 31, 2020	Balance as at January 1, 2020	Reason for non-recovery	Whether impairment or not and the judgment basis
(4) Guizhou Dafang Power Generation Co., Ltd.	18,139,906.40	18,139,906.40	Not yet paid	No / in normal operation without impairment
(5) POWERCHINA Shanghai Electric Power Engineering Co., Ltd.	12,575,664.16	12,575,664.16	Not yet paid	No / in normal operation without impairment
(6) Xi'an Institute of Crystal Growing Technology Co., Ltd.	10,548,000.00	10,548,000.00	Not yet paid	No / in normal operation without impairment
(7) Libo Lidu Hydropower Development Co., Ltd.	3,320,100.00		Not yet paid	No / in normal operation without impairment
(8) Gaotang Jiatou New Energy Co., Ltd.	411,070.00		Not yet paid	No / in normal operation without impairment
(9) Mengyuan Company	225,000.00	450,000.00	Not yet paid	Yes
(10) (Dongteng) Fuxin Shengming Thermoelectricity Co., Ltd.		11,651,383.14	Not yet paid	No / in normal operation without impairment
(11) Guizhou Beipanjiang Electric Power Co., Ltd.		18,116,400.00	Not yet paid	No / in normal operation without impairment
(12) Chongqing Tongxing Rubbish Treatment Co., Ltd.		2,913,445.26	Not yet paid	No / in normal operation without impairment
Total	344,573,317.47	318,354,696.89		

8.9.3 Other receivables

Category	Balance as at December 31, 2020					Balance as at January 1, 2020				
	Book balance		Provision for bad debts		Book value	Book balance		Provision for bad debts		Book value
	Amount	Proportion (%)	Amount	Proportion (%)		Amount	Proportion (%)	Amount	Proportion (%)	
Other receivables with individually significant amount and individual provision for bad debts	1,492,202,165.41	6.61	1,161,333,403.26	75.80	330,868,762.15	384,261,178.73	1.93	348,544,836.17	90.71	35,716,342.56
Other receivables with the provision for bad debts made on a portfolio with credit risk characteristics (applicable in old and new standards)	20,383,035,339.11	90.30	482,373,604.42	2.37	19,900,661,734.69	19,393,343,998.11	97.29	419,316,289.79	2.16	18,974,027,708.32
Other receivables with individually insignificant amount and individual provision for bad debts	106,406,895.99	0.47	103,750,216.65	97.50	2,656,679.34	53,184,252.42	0.27	45,745,601.78	86.01	7,438,650.64
Other receivables with individual provision for bad debts (applicable in new standards)	591,640,074.91	2.62	534,766,283.94	90.39	56,873,790.97	102,055,031.05	0.51	101,093,741.05	99.06	961,290.00
Total	22,573,284,475.42	100.00	2,282,223,508.27		20,291,060,967.15	19,932,844,460.31	100.00	914,700,468.79		19,018,143,991.52

Provision for bad debts (applicable in new standards)

Provision for bad debts	Phase 1	Phase 2	Phase 3	Total
	Expected credit loss in the next 12 months	Expected credit loss in the whole duration (without credit impairment)	Expected credit loss in the whole duration (with credit impairment)	
Balance as at January 1, 2020	45,799,444.51	54,178,538.95	143,255,251.59	243,233,235.05
In 2020, balance as at January 1, 2020	-380,353.22	283,303.22	97,050.00	
- Transfer to Phase 2	-283,303.22	283,303.22		
- Transfer to Phase 3	-97,050.00		97,050.00	
- Reversal from Phase 2				
- Reversal from Phase 1				
Provision in 2020	36,074,595.39	-2,190,076.98	417,754,503.26	451,639,021.67
Reversal in 2020		-4,497,662.72	-2,584,742.64	-7,082,405.36
Write-off in 2020			-429,120.93	-429,120.93
Charge-off in 2020	-495,186.81	-1,105,488.41		-1,600,675.22
Other changes	-1,357,342.69	-38,135,403.12	2,516,598.46	-36,976,147.35
Balance as at December 31, 2020	80,021,510.40	8,249,907.72	560,512,489.74	648,783,907.86

(1) Other receivables with individually significant amount and individual provision for bad debts as at December 31, 2020

Name of debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
Shijiazhuang Dongfang Yuanshun Real Estate Development Co., Ltd.	1,281,448,682.74	965,697,711.02	Within 1 year, 1-2 years, above 5 years	75.36	In 2020, the debtor has entered the bankruptcy liquidation phase, and the company is expected to be unable to recover the remaining funds.

Name of debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
Xinjiang Wusu Xinhong Chemical Co., Ltd.	56,593,055.86	56,593,055.86	Over 5 years	100.00	Expected to be irrecoverable
Yunnan Qujing Yuegang Holding Group Co., Ltd.	24,625,600.00	24,625,600.00	Over 4 years	100.00	Expected to be irrecoverable
Yunnan Hengan Electric Metallurgy Co., Ltd.	23,620,776.98	23,620,776.98	Over 4 years	100.00	It is difficult to recover
Qingdao Decheng Mining Co., Ltd.	22,268,624.51	22,268,624.51	Over 5 years	100.00	Expected to be irrecoverable
Tongliao Electric Power Construction and Installation Co., Ltd.	19,291,421.86	4,428,224.37	2-5 years, over 5 years	22.95	Expected to be partially uncollectible
Holingol Junlong Earthwork Engineering Co., Ltd.	15,096,628.36	14,842,035.42	3-4 years, over 5 years	98.31	Expected to be partially uncollectible
Xinjiang Haoxin Zhongtianshan Tourism Industry Development Co., Ltd.	14,201,141.67	14,201,141.67	0-3 years	100.00	The company has no repayment ability
Xinjiang Kunlun Tire Co., Ltd.	13,238,000.00	13,238,000.00	Over 5 years	100.00	Has won the lawsuit and no executable property
Chongqing Dingtai Tuoyuan Aluminium Oxide Development Co., Ltd.	11,818,233.43	11,818,233.43	Over 5 years	100.00	
Beijing Sanhe Xingyuan Trading Co., Ltd.	10,000,000.00	10,000,000.00	Over 5 years	100.00	Expected to be partially uncollectible
Total	1,492,202,165.41	1,161,333,403.26			

(2) Other receivables with provision for bad debts made by the portfolio with credit risk characteristics

1) Other receivables with the provisions for bad debt made by aging analysis method

Aging	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance		Provision for bad debts	Book balance		Provision for bad debts
	Amount	Proportion (%)		Amount	Proportion (%)	
Within 1 year (including 1 year)	601,640,583.96	65.32	252,377,410.57	1,137,472,130.24	77.72	157,925,957.28
1 - 2 years	73,322,207.41	7.96	26,642,861.60	60,333,383.54	4.12	3,301,756.28
2 - 3 years	50,360,238.52	5.47	12,317,117.88	8,044,696.84	0.55	3,921,738.11
Over 3 years	195,668,616.04	21.25	191,036,214.37	257,701,530.79	17.61	254,166,838.12
Total	920,991,645.93	100.00	482,373,604.42	1,463,551,741.41	100.00	419,316,289.79

2) Other receivables with provision for bad debts made by other portfolios

Name of portfolio	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance	Proportion of provision (%)	Provision for bad debts	Book balance	Proportion of provision (%)	Provision for bad debts
Risk-free portfolio	19,462,043,693.18			17,929,792,256.70		
Total	19,462,043,693.18			17,929,792,256.70		

(3) Other receivables with individually insignificant amount and individual provision for bad debts as at December 31, 2020

Name of debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
Fushun Power Construction and Installment Engineering Company	9,585,978.22	9,585,978.22	4-5 years or more	100.00	Expected to be irrecoverable
Henan Wushe Thermal Power Co., Ltd.	8,412,815.11	8,412,815.11	Over 5 years	100.00	Non-going concern
Jiangxi Changyuan Industry Co., Ltd.	8,127,117.98	8,127,117.98	Within 1 year or 1-2 years	100.00	Company liquidation of the debtor
Land Consolidation, Reclamation and Development Project Office of Wutai County Land & Resources Bureau	8,000,000.00	7,400,000.00	4-5 years	92.50	Irrecoverable
People's Court of Wuzhong City	5,400,000.00	5,400,000.00	Over 5 years	100.00	Irrecoverable
Liaoning Power Plant Power Construction and Installation Company	4,937,159.00	4,937,159.00	1-5 years or more	100.00	Expected to be irrecoverable
Luodian County Township Highway Administration	3,963,496.00	3,963,496.00	Over 5 years	100.00	Expected to be irrecoverable
Tieling Runji Industry Co., Ltd.	3,776,290.27	3,776,290.27	1-2 years	100.00	Expected to be irrecoverable
Xinjiang Kunlun Engineering Tire Co., Ltd.	3,626,708.43	3,626,708.43	Over 5 years	100.00	Expected to be irrecoverable
Guangyuan Preparatory Office	3,319,379.02	3,178,020.68	Over 3 years	95.74	Confirmed to be irrecoverable
Hunan Hantao Energy Company	3,054,275.50	3,054,275.50	Over 5 years	100.00	Expected to be irrecoverable
The People's Court of Changping District, Beijing	2,750,000.00	834,679.00	Over 5 years	30.35	The liquidate expenses have been partially used
Guizhou Yunzhilong Electric Coal Transportation Investment Co., Ltd.	2,257,293.05	2,257,293.05	2-4 years	100.00	Expected to be irrecoverable
Luodian County Water Conservancy Bureau	2,195,163.61	2,195,163.61	Over 5 years	100.00	Expected to be irrecoverable

Name of debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
Salary receivable from self-inspection	2,025,532.75	2,025,532.75	Over 5 years	100.00	Expected to be irrecoverable
China Southern Power Grid Co., Ltd.	2,000,000.00	2,000,000.00	Over 5 years	100.00	Expected to be irrecoverable
Fuxin Gaohai Mining Co., Ltd.	1,559,900.00	1,559,900.00	4-5 years	100.00	Expected to be irrecoverable
Receivables for external inspection 1	1,270,293.81	1,270,293.81	Over 5 years	100.00	Expected to be irrecoverable
Former shareholders of Sikeshu Company	1,115,500.00	1,115,500.00	Over 5 years	100.00	Expected to be irrecoverable
Shanxi Yuncheng Anrui Energy Saving Fan Co., Ltd.	1,074,000.00	1,074,000.00	Over 5 years	100.00	Expected to be irrecoverable
Bankruptcy liquidation manager of Xinjiang Wusu Xinhong Chemical Co., Ltd.	1,017,512.00	1,017,512.00	0-4 years	100.00	Unable to be recovered in whole
Chifeng Landscaping Bureau	1,000,000.00	1,000,000.00	Over 5 years	100.00	Expected to be irrecoverable
Total excess amount	25,938,481.24	25,938,481.24		100.00	
Total	106,406,895.99	103,750,216.65			

(4) Other receivables with individual provision for bad debts as at December 31, 2020

Name of debtor	Book balance	Provision for bad debts	Aging	Expected credit loss rate (%)	Reason for provision
Continental Consulting Pte. Ltd	336,553,100.04	336,553,100.04	Within 1 year	100.00	Judgment on lawsuit of "Dezheng Series"
Shanghai Fengneng Electric Power Co., Ltd.	43,440,435.10	43,440,435.10	Over 5 years	100.00	Expected to be irrecoverable
KIS Corporation	40,020,507.78	40,020,507.78	Within 1 year	100.00	Expected to be irrecoverable
Zhengzhou Xingrui Enterprise Management Consulting Co., Ltd.	33,298,753.17	9,989,625.95	Within 1 year	30.00	Obtain creditor's rights upon restructuring, so the risk increases significantly

Name of debtor	Book balance	Provision for bad debts	Aging	Expected credit loss rate (%)	Reason for provision
Blue Capital Management	29,088,560.00	29,088,560.00	Within 1 year	100.00	Expected to be irrecoverable
Xinhua County Government	27,132,000.00	27,132,000.00	2 - 3 years	100.00	Expected to be irrecoverable
Xinjiang Huadian Changji Thermal Power Phase II Co., Ltd.	25,526,119.59		Within 1 year		The enterprises of the other party are shut down
Total amount	46,093,959.28	45,396,063.08		98.49	
Total	581,153,434.96	531,620,291.95			

(5) Provision for bad debts recovered or reversed

Name of debtor	Amount reversed or recovered	Accumulated provision for bad debts before the reversal or recovery	Reason and method for reversal or recovery
Hu Jinlong	957,560.00	957,560.00	Recovery of payment
Geological Environment Restoration and Management Office of Wutai County Land & Resources Bureau	4,000,000.00	4,000,000.00	Recover of amount in arrears
Total	4,957,560.00	4,957,560.00	

(6) Other receivables actually charged off during the reporting period

Name of debtor	Nature of other receivables	Charge-off amount	Reason for charge-off	Charge-off procedures performed	Whether it generates due to the related-party transactions
Liaoning Nongdian Development Co., Ltd.	Current accounts	40,000,000.00	The debtor's business license was revoked and was irrecoverable in 2001	Audit report or approval of the Management	No
Finance Bureau of Jilin Economic technological Development Zone	Urban supporting fees	443,530.00	Irrecoverable	Approval of manager meeting	No

Name of debtor	Nature of other receivables	Charge-off amount	Reason for charge-off	Charge-off procedures performed	Whether it generates due to the related-party transactions
Chi Huanxiang	Others	310,000.00	The other party has lost contact	Upon approval of Party committee	No
Dalian Economic and Technological Development Trust Investment Company	Current accounts	281,000.00	The investee started liquidation in 2001, so they are irrecoverable.	Audit report or approval of the Management	No
Qingshi Lida Company	Others	274,897.00	Irrecoverable	Party Committee	No
Shenyang Feihongda Energy Saving Equipment Technology Development Co., Ltd.	Others	112,800.00	The other party has been cancelled	Approval by General Manager's Office	No
Jilin Bulk Cement Office	Current accounts	93,672.00	Irrecoverable	Approval by Manager's Office	No
Beijing Fulin Company	Current accounts	86,860.00	Irrecoverable	Approval by Manager's Office	No
Outsider Renovation of No.4 factory dormitory water meter	Others	64,440.00	Irrecoverable	Approval by Party Committee	No
Dalian Heavy Machinery Hydraulic Machinery Manufacturing Co., Ltd.	Current accounts	63,420.00	Irrecoverable	Approval by Manager's Office	No
Pre-trial Office of Jilin Economic Technological Development Zone	Current accounts	50,000.00	Irrecoverable	Approval by Manager's Office	No
Ju Kun	Employee borrowings	44,972.20	The debtor’s death	Approval by the Management	No
Shanxi Coal Transportation and Sales Corporation, Yangquan Branch, Yuxian Company	Others	4,996.81	The other party has been cancelled	Approval by General Manager's Office	No
Lingshou Dongfang New Energy Power Generation Co., Ltd.	Others	2,950.00	The other party has been cancelled	Approval by General Manager's Office	No

Name of debtor	Nature of other receivables	Charge-off amount	Reason for charge-off	Charge-off procedures performed	Whether it generates due to the related-party transactions
Beijing Jingxingchang Electric Equipment Co., Ltd.	Current accounts	44,296.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Shanghai Zhichang Electrical Equipment Co., Ltd.	Current accounts	3,330.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Beijing Biaosheng Yutian Machinery Equipment Co., Ltd.	Current accounts	12,900.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Yueqing Chunxing Electric Co., Ltd.	Current accounts	4,500.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Shanghai Tiandie Valve Co., Ltd.	Current accounts	3,087.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Shanghai Lianjiang Engineering Co., Ltd.	Current accounts	50,000.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Shanghai Jinhu Energy Engineering Co., Ltd.	Current accounts	281,631.32	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No

Name of debtor	Nature of other receivables	Charge-off amount	Reason for charge-off	Charge-off procedures performed	Whether it generates due to the related-party transactions
Shanghai Huazhong Evaluation Co., Ltd.	Current accounts	60,000.00	Loss from revocation or cancellation of debtor	Minutes of the leadership team meeting and special audit report on financial write-off of asset losses	No
Total sporadic amount	Others	1,007,457.20			
Total		43,300,739.53			

(7) Top 5 of other receivables as at December 31, 2020, presented by debtors

Name of debtor	Nature	Book balance	Aging	Proportion in total other receivables (%)	Provision for bad debts
Urumqi Guoyuan Energy Management Co., Ltd.	Equity transfer fund	4,559,232,878.29	Within 1 year, 2-3 years	20.20	
Inner Mongolia Menglun Energy Management Co., Ltd.	Equity transfer fund	1,315,496,454.28	0-2 years	5.83	
Ulanqab project deposit	Security deposit	1,000,000,000.00	2-3 years	4.43	
Qinghai Baihe Aluminum Industry Co., Ltd.	Advances	766,657,527.17	1-2 years	3.40	
Continental Consulting Pte. Ltd	Payment for materials	336,553,100.04	Within 1 year	1.49	336,553,100.04
Total		7,977,939,959.78		35.35	

8.10 Financial assets purchased under resale agreements

Item	Book balance as at December 31, 2020	Book balance as at January 1, 2020
Pledged repo bonds	35,953,071.30	
Total	35,953,071.30	

8.11 Inventories

8.11.1 Classification of inventories

Item	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance	Provision for depreciation	Book value	Book balance	Provision for depreciation	Book value
Raw materials	9,857,447,289.37	347,296,954.11	9,510,150,335.26	9,798,283,939.78	401,248,890.41	9,397,035,049.37
Semi-manufactured and goods in progress	7,406,827,655.13	65,990,169.33	7,340,837,485.80	10,398,367,696.17	381,057,191.04	10,017,310,505.13
Including: completed and unsettled projects (to be filled out by the enterprises that implement the Standards for Construction Contracts)	5,290,225,774.15	54,938,006.18	5,235,287,767.97	6,500,694,097.97	487,807.45	6,500,206,290.52
Stock commodities (finished goods)	3,188,908,779.71	221,221,149.21	2,967,687,630.50	2,868,072,791.02	265,742,749.72	2,602,330,041.30
Circulating materials (packaging materials, low-cost consumables, etc.)	48,045,875.71		48,045,875.71	47,993,247.01		47,993,247.01
Contract performance cost (applicable in new standards)	191,382,200.77	487,807.45	190,894,393.32	27,580,155.70		27,580,155.70
Others	580,995,003.38	988,382.47	580,006,620.91	802,428,956.66	988,382.47	801,440,574.19
Total	21,273,606,804.07	635,984,462.57	20,637,622,341.50	23,942,726,786.34	1,049,037,213.64	22,893,689,572.70

8.11.2 Completed and outstanding assets arising from construction contracts as at December 31, 2020

Item	Balance as at December 31, 2020
Cumulative incurred costs	78,696,803,318.56
Gross profit accumulatively recognized	3,091,709,091.08
Less: estimated loss	
Amount settled	76,498,286,635.49
Completed but unsettled assets arising from construction contracts	5,290,225,774.15

8.12 Contract assets

8.12.1 Details of contract assets

Item	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Green power subsidy	3,019,229,847.93	163,493.50	3,019,066,354.43	5,253,245,663.56	1,114,355.59	5,252,131,307.97
Engineering projects	575,565,070.32	17,805,595.19	557,759,475.13	583,147,242.70	30,996,603.26	552,150,639.44
Design service	81,132.08	5,971.32	75,160.76	81,132.08	2,912.64	78,219.44
Consulting service	3,667,125.52	109,647.05	3,557,478.47			
Net income from thermal power projects	911,415,859.90		911,415,859.90	376,362,083.51		376,362,083.51
Total	4,509,959,035.75	18,084,707.06	4,491,874,328.69	6,212,836,121.85	32,113,871.49	6,180,722,250.36

8.12.2 Provision for impairment of contract assets

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
Green power subsidy	1,114,355.59	-950,862.09		163,493.50
Engineering projects	30,996,603.26	-13,078,302.34		17,918,300.92
Design service	2,912.64			2,912.64
Total	32,113,871.49	-14,029,164.43		18,084,707.06

8.13 Assets held for sale

Type	Balance as at December 31, 2020	Balance as at January 1, 2020
Assets classified as held for sale		21,701,101.43
Assets in disposal groups classified as held-for-sale	5,396,191,551.88	4,410,240,030.24
Total	5,396,191,551.88	4,431,941,131.67

8.13.1 Assets classified as held for sale

Type	Balance as at December 31, 2020			Fair value as at December 31, 2020	Estimated disposal cost	Estimated time of disposal	Method of sales	Reason for sales	Division
	Book balance	Provision for impairment of assets held for sale	Book value						
Disposal group 1:									
Notes receivable	58,000,000.00		58,000,000.00	58,000,000.00	Equity transfer without disposal fees				
Accounts receivable	108,688,210.38		108,688,210.38	108,688,210.38	Equity transfer without disposal fees				
Other receivables	277,312,547.91		277,312,547.91	277,312,547.91	Equity transfer without disposal fees				
Fixed assets	4,056,122,083.20	293,663,791.96	3,762,458,291.24	3,762,458,291.24	Equity transfer without disposal fees				
Construction in progress	19,100,260.60		19,100,260.60	19,100,260.60	Equity transfer without disposal fees				
Disposal group 2:									
Cash	62,795.87		62,795.87	62,795.87	Equity transfer without disposal fees				
Advance to suppliers	54,927.33		54,927.33	54,927.33	Equity transfer without disposal fees				
Other receivables	6,392,976.00		6,392,976.00	6,392,976.00	Equity transfer without disposal fees				

Type	Balance as at December 31, 2020			Fair value as at December 31, 2020	Estimated disposal cost	Estimated time of disposal	Method of sales	Reason for sales	Division
	Book balance	Provision for impairment of assets held for sale	Book value						
Inventories-others	1,137,314,203.32		1,137,314,203.32	1,137,314,203.32	Equity transfer without disposal fees				
Other current assets	24,411,754.85		24,411,754.85	24,411,754.85	Equity transfer without disposal fees				
Fixed assets	81,118.94		81,118.94	81,118.94	Equity transfer without disposal fees				
Intangible assets	39,749.25		39,749.25	39,749.25	Equity transfer without disposal fees				
Total	5,687,580,627.65	293,663,791.96	5,393,916,835.69	5,393,916,835.69					

Remark 1: On February 5, 2018, Shanxi Shentou Power Co., Ltd. (hereinafter referred to as "Shanxi Shentou"), a subsidiary of the Company's subsidiary China Power International Holding Limited (hereinafter referred to as "China Power") entered into a joint venture contract with several companies including Jiangsu Guoxin to establish a joint venture. The registered capital is RMB 6 billion, in which Jiangsu Guoxin holds 51%, ChinaCoal Pingshuo Coal Company Limited 15%, Tongmei Group 15%, Shanxi Shentou 9.5%, Datang International 5% and Shanxi Yangguang 9.5%. Shanxi Shentou made capital contributions in cash and 80% of the equity in China Power Shentou Power Generating Company Limited (hereinafter referred to as "CP Shentou").

On February 5, 2018, CP Shentou's cash-generating unit was classified as a disposal group held for sale, which is measured at the lower of the balance between book value and fair value less disposal costs.

The joint venture company was established on October 10, 2018 with a registered capital of RMB 200 million in the first phase, and all the contributors have made contribution. CP Shentou will sell its 80% interest at a fair value recognized by the parties.

Since the signing of the joint venture contract, China Power has been working with Jiangsu Guoxin, the controlling shareholder of the joint venture, to promote the injection of the entire 80% equity in CP Shentou into the joint venture. In late 2019, when China Power and Jiangsu Guoxin were negotiating the amount of the equity contribution to CP Shentou, they had disagreements, and the determination of the valuation needed to be reported and approved by the competent authorities before the next stage of the agreement could be progressed. Due to the above factors, the filing of the valuation by the Group Company and the related process by SASAC had not been completed. In the first half of 2020, due to the force majeure of the COVID-19 Epidemic, the progress of the valuation of the equity in CP Shentou as a stock purchase was stalled. From August to December 2020, China Power and Jiangsu Guoxin held nearly 10 working coordination meetings to communicate in depth on matters such as the scope of the project's assessed value, operation and maintenance costs, and the latest boundary conditions of the project, and jointly confirmed on December 18, 2020 that there were no changes to the main contractual terms of the Sujin Energy joint venture contract and that the parties had no intention to terminate the equity injection of CP Shentou into the joint venture company, and would continue to work together to fully promote the completion of the work of CP Shentou and injection into the joint venture.

In light of this, the management has determined that it is highly unlikely that the agreement to be renewed will be materially adjusted or rescinded from the agreement originally signed, that the sale is still highly likely to occur and that it can be sold immediately in the current status, and that the CP Shentou cash-generating units continue to meet the definition of being classified as a disposal group at the end of the year and remain as a group of assets held for sale as of December 31, 2020.

Remark 2: In accordance with the notice requirements of the Work Plan for the Disposal of Assets of Group Companies in 2020 (GJDTJC [2020] No. 97), on October 23, 2020, through a shareholders' resolution, it was agreed to transfer 100% equity of Jiangxi Hongdian Property Co., Ltd., a subsidiary of the Company, and as of the end of the year, Jiangxi Hongdian Property Co., Ltd. had signed a framework agreement for the transfer of equity, and the Company presented Jiangxi Hongdian Property Co., Ltd. as assets held for sale and prepared consolidated financial statements on this basis.

8.14 Non-current assets maturing within one year

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Disbursement of loans and advances maturing within one year	2,603,681,024.49	2,387,178,185.96
Long-term receivables maturing within one year	13,848,974,727.03	17,475,260,511.69
Available-for-sale financial assets maturing within one year (applicable in old standards)	1,890,580,000.00	2,499,360,000.00
Creditor's right investment maturing within one year (applicable in new standards)	924,803,208.56	1,547,527,704.05
Time deposits maturing within one year		11,605,000.00
Mid-term notes maturing within one year		500,000,000.00
Entrusted loans		12,000,000.00
Others	942,825.84	552,728,563.76
Total	19,268,981,785.92	24,985,659,965.46

8.15 Other current assets

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Entrusted loans (short-term)	3,536,523,711.42	535,392,486.83
Prepaid income tax	412,448,241.57	366,071,952.30
Input tax not deducted	16,205,134,733.68	13,596,698,577.07
Overpaid VAT	337,929,819.35	241,431,871.64
Overpaid other taxes and surcharges	44,618,775.96	35,372,526.70
Others	2,007,257,247.34	4,352,498,550.19
Total	22,543,912,529.32	19,127,465,964.73

8.16 Disbursement of loans and advances

8.16.1 Loans and advances classified by individual and enterprise distribution

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Loans and advances to enterprises	655,017,884.91	699,650,094.05
-Loans	655,017,884.91	699,650,094.05
Total loans and advances	655,017,884.91	699,650,094.05
Less: provision for losses on loans	8,245,467.68	47,882,996.59
Including: provision made on single basis		
Provision made on portfolio basis	8,245,467.68	47,882,996.59
Book value of loans and advances	646,772,417.23	651,767,097.46

8.16.2 Loans classified by industry distribution

Industry distribution	Balance as at December 31, 2020	Balance as at January 1, 2020
Power industry	655,017,884.91	699,650,094.05
Total loans and advances	655,017,884.91	699,650,094.05
Less: provision for losses on loans	8,245,467.68	47,882,996.59
Including: provision made on single basis		
Provision made on portfolio basis	8,245,467.68	47,882,996.59
Book value of loans and advances	646,772,417.23	651,767,097.46

8.17 Creditor's right investment

8.17.1 Information of creditors' investment

Item	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Corporate bonds	1,635,401,917.80		1,635,401,917.80	220,000,000.00		220,000,000.00
Trust plan	1,223,017,968.50	194,184,429.69	1,028,833,538.81	927,469,508.45	109,206,971.73	818,262,536.72
Preferred stocks	10,122,500.00	10,015.17	10,112,484.83	10,115,500.00	10,115.50	10,105,384.50
Total	2,868,542,386.30	194,194,444.86	2,674,347,941.44	1,157,585,008.45	109,217,087.23	1,048,367,921.22

8.17.2 Important creditor's right investment as at December 31, 2020

Bond-related item	Par value	Coupon rate	Effective interest rate	Due Date
Baoying No. 777	300,000,000.00			2029-6-14
Baoying No. 701	328,200,000.00			2028-4-23
Baoying No. 655-Preferred B	365,000,000.00			2022-1-19
20 Shangrun Jintai	500,000,000.00	4.20%	4.20%	2023-10-26
20-Bank of China	400,000,000.00	3.15%	3.15%	2023-8-5
20-Bank of Communications	500,000,000.00	3.18%	3.18%	2023-8-7
Total	2,393,200,000.00			

8.18 Available-for-sale financial assets

8.18.1 Breakdown of available-for-sale financial assets

Item	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Available-for-sale debt instruments	1,567,582,528.18		1,567,582,528.18	1,676,256,760.71		1,676,256,760.71
Available-for-sale equity instruments	7,692,036,258.14	702,085,996.12	6,989,950,262.02	6,123,433,110.53	644,498,355.38	5,478,934,755.15
Including: measured at fair value	728,936,794.06	198,522,528.14	530,414,265.92	673,104,666.94	198,522,528.14	474,582,138.80
Measured at cost	6,963,099,464.08	503,563,467.98	6,459,535,996.10	5,450,328,443.59	445,975,827.24	5,004,352,616.35
Others	1,099,540,937.75		1,099,540,937.75	381,389,773.07		381,389,773.07
Total	10,359,159,724.07	702,085,996.12	9,657,073,727.95	8,181,079,644.31	644,498,355.38	7,536,581,288.93

8.18.2 Available-for-sale financial assets measured at fair value as at December 31, 2020

Item	Available-for-sale equity instruments	Available-for-sale debt instruments	Others	Total
Cost of the equity instruments/amortized cost of debt instruments	987,811,641.48			987,811,641.48
Fair value	855,012,614.28			855,012,614.28
Changes in fair value accumulatively included in other comprehensive income	57,798,825.53			57,798,825.53
Amount of provision for impairment	198,522,528.14			198,522,528.14

8.18.3 Notes to available-for-sale equity instruments of which fair value as at December 31, 2020 had serious decline or non-temporary decline without any provision for impairment made

Available-for-sale equity instruments	Investment cost	Fair value as at December 31, 2020	Decline proportion of fair value in cost (%)	Period for continuous decline (Month(s))	Amount of provision for impairment	Reason for failure in provision for impairment
Ningxia Western Venture Industry Co., Ltd.	442,931,541.48	279,362,179.32	44.82	7	198,522,528.14	
Total	442,931,541.48	279,362,179.32			198,522,528.14	

8.19 Held-to-maturity investment

Item	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
PSBC USD 68 Million Preferred Stocks	456,613,546.01		456,613,546.01	339,375,910.31		339,375,910.31
CMBC USD 40 Million Preferred Stocks	265,401,612.48		265,401,612.48	279,698,181.80		279,698,181.80
ICBC Asia USD 25 Million Preferred Stocks	164,470,218.07		164,470,218.07	174,301,752.24		174,301,752.24
BOCOM USD 30 Million Preferred Stocks	198,773,248.62		198,773,248.62			
BOC USD 300 Million Preferred Stocks	2,133,642,300.00		2,133,642,300.00	2,263,009,518.00		2,263,009,518.00
BOC USD 150 Million Preferred Stocks	985,194,651.00		985,194,651.00			
Chinalco USD 50 Million Perpetual Debts	335,640,856.00		335,640,856.00	352,507,386.00		352,507,386.00
CSCII USD 16 Million Perpetual Debts	105,024,790.40		105,024,790.40	112,083,535.90		112,083,535.90

Item	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
MCC USD 50 Million Perpetual Debts	327,615,229.00		327,615,229.00	356,030,367.00		356,030,367.00
China CITIC Bank USD 54 Million Preferred Stocks	362,737,656.47		362,737,656.47	383,958,188.50		383,958,188.50
Hebei Company's Fund Investment				25,000,000.00		25,000,000.00
Debt asset package of assets management company	190,000,000.00		190,000,000.00			
Total	5,525,114,108.05		5,525,114,108.05	4,285,964,839.75		4,285,964,839.75

8.20 Long-term receivables

Item	Balance as at December 31, 2020			Balance as at January 1, 2020			Interval of discount rate as at December 31, 2020
	Book balance	Provision for bad debts	Book value	Book balance	Provision for bad debts	Book value	
Payment for finance lease	23,571,056,820.56	409,371,421.24	23,161,685,399.32	46,005,351,732.17	837,411,110.73	45,167,940,621.44	
Installment proceeds from sale of goods	43,654,173.02		43,654,173.02	47,021,985.61		47,021,985.61	
Installment proceeds from rendering of services							
Others	20,966,893,530.31	498,237,786.73	20,468,655,743.58	10,750,682,660.53	241,511,875.62	10,509,170,784.91	
Total	44,581,604,523.89	907,609,207.97	43,673,995,315.92	56,803,056,378.31	1,078,922,986.35	55,724,133,391.96	

8.21 Long-term equity investments

8.21.1 Classification of long-term equity investments

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
Investment in subsidiaries	56,120,432.65	69,990,000.00		126,110,432.65
Investments in joint ventures	15,591,591,666.04	2,028,668,404.93	1,038,886,691.24	16,581,373,379.73
Investments in associates	24,429,969,194.60	5,163,458,856.44	2,462,793,046.92	27,130,635,004.12
Sub-total	40,077,681,293.29	7,262,117,261.37	3,501,679,738.16	43,838,118,816.50
Less: provision for impairment of long-term equity investments	832,416,606.29	342,709,979.85		1,175,126,586.14
Total	39,245,264,687.00	6,919,407,281.52	3,501,679,738.16	42,662,992,230.36

8.21.2 Breakdown of long-term equity investments

Investee	Investment cost	Balance as at January 1, 2020	Increase/decrease in 2020								Balance as at December 31, 2020	Balance of provision for impairment as at December 31, 2020
			Additional investment	Negative investment	Profit or loss on investments recognized by the equity method	Adjustment to other comprehensive income	Other changes in equities	Cash dividends or profits declared to be distributed	Provision for impairment	Others		
Total	39,848,485,455.64	40,077,681,293.29	2,990,494,953.07	166,787,445.04	3,070,297,308.31	-93,240,952.20	561,895,828.94	2,190,249,468.03	342,709,979.85	-411,972,701.84	43,838,118,816.50	1,175,126,586.14
I. Subsidiaries	126,110,432.65	56,120,432.65	69,990,000.00						69,990,000.00		126,110,432.65	126,110,432.65
SPIC Xinjiang Energy Chemical Group Hami Alkali Industry Co., Ltd.	31,014,981.79	31,014,981.79									31,014,981.79	31,014,981.79
Beijing Yima Times Electrical Technology Co., Ltd.	5,105,450.86	5,105,450.86									5,105,450.86	5,105,450.86
SPIC Guangxi Beibu Gulf (Qinzhou) Cogeneration Co., Ltd.	63,990,000.00		63,990,000.00						63,990,000.00		63,990,000.00	63,990,000.00
Shijiazhuang Dongfang Yuanshun Real Estate Development Co., Ltd.	6,000,000.00		6,000,000.00						6,000,000.00		6,000,000.00	6,000,000.00
Xinjiang Wusu Xinhong Chemical Co., Ltd.	20,000,000.00	20,000,000.00									20,000,000.00	20,000,000.00
II. Joint ventures	16,031,676,504.35	15,591,591,666.04	1,034,741,275.74	6,820,778.24	970,721,598.96	-96,435,575.36	-135,756,000.00	712,541,814.42		-64,126,992.99	16,581,373,379.73	
Xiong'an Xingrong Nuclear Power Innovation Center Co., Ltd.	20,000,000.00	20,000,000.00									20,000,000.00	
Liaoning Hongyanhe Nuclear Power Co., Ltd.	7,090,209,900.00	7,139,868,325.20	356,215,500.00		539,676,106.69			433,550,857.36		-53,616,986.27	7,548,592,088.26	
Hunan Luxin Smart Energy Co., Ltd.	8,000,000.00	8,000,000.00		6,820,778.24	-1,179,221.76							
Hunan Luxin Smart Energy Co., Ltd.	9,232,017.39		8,012,753.26		1,219,264.13						9,232,017.39	
Hunan China Resources Power Liyujiang Co., Ltd.	261,977,598.77	243,701,266.84			17,490,326.32						261,191,593.16	
Huaihu Coal & Power Co., Ltd.	1,112,966,089.60	1,292,773,322.00	27,205,700.00		39,562,294.37			50,000,000.00			1,309,541,316.37	

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			Additional investment	Negative investment	Profit or loss on investments recognized by the equity method	Adjustment to other comprehensive income	Other changes in equities	Cash dividends or profits declared to be distributed	Provision for impairment	Others		
Zhejiang Zheneng Guodian Investment Shengsi Offshore Wind Power Co., Ltd.	250,000,000.00	150,000,000.00	100,000,000.00								250,000,000.00	
Henan Zhongping Coal & Power Co., Ltd.	68,319,696.50	75,985,756.29			600,000.00						76,585,756.29	
Xinjiang Zhundong Wucai Bay North Second Power Plant Co., Ltd.	122,000,000.00	100,000,000.00	22,000,000.00								122,000,000.00	
Guangxi Guangtou Lingang Industry Co., Ltd.	24,500,000.00		24,500,000.00								24,500,000.00	
Guangzhou China Power Lixin Industry Company Limited	302,000,000.00	425,941,027.21			40,000,000.00			26,435,640.71			439,505,386.50	
Pingyao SPIC New Energy Power Co., Ltd.	51,956,000.00	17,980,000.00	33,976,000.00				-51,956,000.00					
Changshu Binjiang Heat Co., Ltd.	42,140,000.00	78,710,146.59			11,947,172.29			9,188,104.60			81,469,214.28	
SPIC Lvneng Technology Development (Beijing) Co., Ltd.	2,500,000.00		2,500,000.00		-574,771.78						1,925,228.22	
SNPTC-WEC Nuclear Power Technical Services (Beijing) Co,. Ltd.	6,165,400.00	1,366,024.86			-1,366,024.86							
SNPTC Zheneng Nuclear Energy Co., Ltd.	144,300,000.00	107,899,133.89	32,600,000.00								140,499,133.89	
SPIC Anhui Conch Power Sales Co., Ltd.	1,131,322.48		1,131,322.48		5,674,451.54			7,190,000.00		7,191,142.22	6,806,916.24	
Huadian Fuxin SNPTC (Beijing) Energy Co., Ltd.	2,450,000.00	3,764,532.81			227,298.52						3,991,831.33	
Baoshan Longchuanjiang Hydropower Development Co., Ltd.	126,000,000.00	67,631,113.28	49,000,000.00		-14,432,343.05						102,198,770.23	

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			Additional investment	Negative investment	Profit or loss on investments recognized by the equity method	Adjustment to other comprehensive income	Other changes in equities	Cash dividends or profits declared to be distributed	Provision for impairment	Others		
Yunnan Dianeng Luliang Union Thermoelectricity Co., Ltd.	107,265,200.00	32,911,934.47			435,750.33					0.01	33,347,684.81	
Xiangning SPIC New Energy Power Co., Ltd.	83,800,000.00	45,900,000.00	37,900,000.00				-83,800,000.00					
Dongguan Humen Gangli Fengyuan Public Pipe Gallery Co., Ltd.	10,500,000.00	10,500,000.00			-60,040.15						10,439,959.85	
China Power Changshu Electricity Distribution Co., Ltd.	80,004,000.00	88,171,590.52			5,998,057.96			7,000,000.00			87,169,648.48	
Zhongji Guoda Power Technology Jiangsu Co., Ltd.	8,000,000.00	12,534,735.34			-1,969,112.00						10,565,623.34	
Russia-China Energy Cooperation Investment Fund Management (Jinan) Co., Ltd.	5,000,000.00											
SEP Spanish Yiju New Energy Co., Ltd.	11,664.52	11,664.52								-705.76	10,958.76	
Shanghai Haiwan Xinneng Wind Power Co., Ltd.	339,700,000.00		339,700,000.00								339,700,000.00	
Shanghai Yangshupu Xinyi Real Estate Development Co., Ltd.	2,151,490,032.44	2,171,078,971.90			24,294,518.60						2,195,373,490.50	
Shanghai Yishan New Energy Technology Co., Ltd.	900,000,000.00	895,166,413.21			23,099,558.16			43,177,211.75			875,088,759.62	
Shanghai Waigaoqiao No.2 Power Generation Co. Ltd.	752,195,110.33	838,636,844.56			75,555,298.34			64,000,000.00			850,192,142.90	
Shanghai Waigaoqiao No.3 Power Generation Co., Ltd.	729,833,493.03	740,672,927.82			129,217,914.93			72,000,000.00			797,890,842.75	

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			Additional investment	Negative investment	Profit or loss on investments recognized by the equity method	Adjustment to other comprehensive income	Other changes in equities	Cash dividends or profits declared to be distributed	Provision for impairment	Others		
Shanghai Wujing Power Generation Co., Ltd.	394,136,898.50											
Shanghai Friendship Shipping Co., Ltd.	162,125,500.00	161,012,354.72			-4,376,787.37						156,635,567.35	
HLH	563,413,682.78	673,286,930.34			61,471,674.63	-80,723,459.79				-22,912,904.18	631,122,241.00	
HLC	98,142,721.02	187,861,597.68			18,231,403.24	-15,712,115.57				5,212,460.99	195,593,346.34	
C&S Engineering Co., Ltd.	210,176.99	225,051.99			-21,190.12						203,861.87	
II. Associates	23,690,698,518.64	24,429,969,194.60	1,885,763,677.33	159,966,666.80	2,099,575,709.34	3,194,623.16	697,651,828.94	1,477,707,653.61	272,719,979.85	-347,845,708.84	27,130,635,004.12	1,049,016,153.49
Liaoning SPIC Huida Power Technology Co., Ltd.	11,600,000.00	20,381,271.91			5,188,579.43						25,569,851.34	
Enemalta PLC	709,520,000.00	1,013,713,871.55			-74,614,402.15					25,087,669.23	964,187,138.63	
Qinghai Energy Development Co., Ltd.	755,000,000.00	619,101,936.68			-2,051,971.15		5,434,113.90				622,484,079.43	
Qinghai Guoshang New Energy Development Co., Ltd.	200,134,501.80	200,034,501.80	100,000.00		1,598,627.42						201,733,129.22	
Fuxin Gaohai Mining Co., Ltd.	83,757,002.19	44,794,568.17									44,794,568.17	44,794,568.17
Fuxin Dayuan Coal Mine Co., Ltd.	184,456,416.79	161,333,359.38									161,333,359.38	161,333,359.38
Fuxin Shengming Thermal Power Co., Ltd.	22,728,926.23	7,077,127.62			-7,077,127.62							
Chongqing Yuankang Environmental Protection Technology Co., Ltd.	15,000,000.00	300,000.00	14,700,000.00		544,921.51						15,544,921.51	
Chongqing Shengyu Xinglong Electric Power Co., Ltd.	100,218,633.00	100,218,633.00									100,218,633.00	
Chongqing Gangqiao Energy Co., Ltd.	8,400,000.00		8,400,000.00								8,400,000.00	
Chongqing Aijust Co., Ltd.	20,000,000.00	8,825,861.02			243,905.64						9,069,766.66	

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			Additional investment	Negative investment	Profit or loss on investments recognized by the equity method	Adjustment to other comprehensive income	Other changes in equities	Cash dividends or profits declared to be distributed	Provision for impairment	Others		
Chongqing Jianhe Stone Powder Co., Ltd.	13,650,000.00	9,042,245.51			126,689.39						9,168,934.90	
Chongqing Tiantai Aluminum Co., Ltd.	171,216,977.51	237,860,960.58			18,092,332.72						255,953,293.30	159,548,379.64
Chongqing Tianhong Mining Co., Ltd.	266,459,137.33	94,144,084.89									94,144,084.89	94,144,084.89
Chongqing Guolong Electric Power Co., Ltd.	208,653,900.00	63,868,692.83			-36,973,834.74				26,894,858.09		26,894,858.09	26,894,858.09
Zhengzhou Bairui Innovation Investment Management Co., Ltd.	6,326,200.00	3,736,358.23			460,746.30						4,197,104.53	
Tongliao Electric Power Construction and Installation Co., Ltd.	7,643,775.74	7,643,775.74			37,481.03						7,681,256.77	
Tongliao Business Training Co., Ltd.	50,000,000.00	30,286,491.87			-1,783,419.87						28,503,072.00	
Tonghua Hengtai Thermal Power Co., Ltd.	10,657,190.10											
Liaoning Zhuanghe Nuclear Power Co., Ltd.	176,000,000.00		176,000,000.00								176,000,000.00	
Gannan Soviet Area Revitalization and Development Fund Management Co., Ltd.	9,000,000.00	8,888,556.61		9,000,000.00						111,443.39		
Guizhou Qianxi Energy Development Co., Ltd.	37,500,000.00	80,480,653.86			21,670,937.04		-4,371,040.02				97,780,550.88	
Guizhou Railway Investment Co., Ltd.	1,900,000,000.00	2,548,194,816.14			22,213,974.42		-212,186,904.68				2,358,221,885.88	
Guizhou Zunyi Tuanxi Lvxiang Wind Power Co., Ltd.	39,200,000.00	37,816,142.50			-1,899,707.67						35,916,434.83	

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			Additional investment	Negative investment	Profit or loss on investments recognized by the equity method	Adjustment to other comprehensive income	Other changes in equities	Cash dividends or profits declared to be distributed	Provision for impairment	Others		
Guizhou Libo Lidu Hydropower Development Co., Ltd.	10,462,000.00	16,950,718.44			5,102,801.78						22,053,520.22	
Guizhou Nengfa Alpine Mining Co., Ltd.	51,000,000.00											
Guizhou Hongwei Highway Co., Ltd.	77,000,000.00	77,000,000.00									77,000,000.00	77,000,000.00
Guizhou Yushe Coal Industry Co., Ltd.	40,000,000.00											
Guizhou Bide Coal Industry Co., Ltd.	48,000,000.00											
Guizhou Pu'an Diguapo Coal Industry Co. , Ltd.	33,187,488.00	33,187,488.00									33,187,488.00	
Guizhou Dafang Power Generation Co., Ltd.	199,440,000.00											
Guizhou Faer Coal Industry Co., Ltd.	81,990,000.00	197,360,236.55			15,896,768.66		-2,119,527.17				211,137,478.04	
Guizhou Wulunshan Coal Industry Co., Ltd.	60,000,000.00											
Guizhou Yunzhilong Electric Coal Transportation Investment Co., Ltd.	4,000,000.00	4,000,000.00									4,000,000.00	4,000,000.00
Xi'an Ruicheng Longtai New Energy Co., Ltd.	55,340,000.00	55,340,000.00		55,340,000.00								
Xi'an Institute of Crystal Growing Technology Co., Ltd.	40,000,000.00											
Ronghe Dongneng (Jiaxing) New Energy Investment Partnership (Limited Partnership)	260,000,000.00	260,000,000.00			14,947,506.85			14,947,506.85			260,000,000.00	
Qinshan Third Nuclear Power Co., Ltd.	200,000,000.00	1,263,854,606.62			313,271,845.42	2,354,965.46	4,445,886.02	230,200,000.00			1,353,727,303.52	

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			Additional investment	Negative investment	Profit or loss on investments recognized by the equity method	Adjustment to other comprehensive income	Other changes in equities	Cash dividends or profits declared to be distributed	Provision for impairment	Others		
Shenhua Guohua Shouguang Power Co., Ltd.	552,654,000.00	723,588,256.47			108,293,882.67						831,882,139.14	
Bairui Innovation Venture Capital Co., Ltd.	39,000,000.00	65,627,860.91			-2,673,667.13		35,290,637.50				98,244,831.28	
Hubei Liefeng Energy Co., Ltd.	38,454,000.00		38,454,000.00								38,454,000.00	
Shenzhen Ludian Electric Power Design Research Institute Co., Ltd.												
Ganhe Technology Co., Ltd.	2,260,000.00	50,000.00	2,210,000.00		20,113.66						2,280,113.66	
Zhejiang Zheneng Zhenhai Gas-fired Power Generation (Zhejiang) Co., Ltd.	199,687,500.00	182,507,003.51			15,830,286.27						198,337,289.78	
Zhejiang Shangdian Tiantai Mountain Wind Power Co., Ltd.	13,981,320.00											
Weihai Nursing Home of Henan Hongyuan Electric Power Fuel Corporation	2,645,000.00	971,994.04							971,994.04		971,994.04	971,994.04
Henan Yagao New Energy Co., Ltd.	32,660,900.00	21,774,000.00	10,886,900.00								32,660,900.00	
Henan Hongqi Enterprise Management Co., Ltd.	30,000,000.00	42,159,692.15			-118,092.71						42,041,599.44	
Henan Zhongping Luyang Coal and Electricity Co., Ltd.	32,484,060.00	42,341,274.63			11,442,881.07						53,784,155.70	
Hebei Zhicheng Energy Co., Ltd.	2,400,000.00		2,400,000.00		25,394.74						2,425,394.74	
Jiangxi Ganjiang New District Lvdong Smart Energy Operation Co., Ltd.	4,900,000.00	4,879,254.78	8,820,000.00		158,729.86						13,857,984.64	
Jiangxi United Energy Co., Ltd.	34,350,000.00	17,397,828.97	16,350,000.00		1,038,619.34						34,786,448.31	

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Jiangxi Jianghe Technology Co., Ltd.	7,938,450.00		7,938,450.00		-527,421.75						7,411,028.25	
Jiangxi Lulan Technology Co., Ltd.	1,620,000.00		1,620,000.00		107,165.19						1,727,165.19	
Jiangsu Nuclear Power Co., Ltd.	4,555,073,000.00	5,691,182,913.79	217,638,000.00		652,363,130.71	66,000.00	13,290,320.48	537,900,000.00			6,036,640,364.98	
Jiangsu National Nuclear Pipeline System Engineering Technology Research Institute	3,500,000.00	3,124,363.16		3,504,570.33	380,207.17							
Jiangsu Huadian Wangting Natural Gas Power Generation Co., Ltd.	222,852,724.66	220,303,599.59			7,257,916.36						227,561,515.95	
Jiangsu Jiusi Investment Co., Ltd.	271,440,000.00	271,440,000.00			-590,722.82					-270,849,277.18		
Nuclear Power Qinshan Associate Co., Ltd.	228,000,000.00	550,675,384.05			118,779,342.45	597,455.10	611,813.29	101,760,000.00			568,903,994.89	
Linzhou Linneng Green Power Development Co., Ltd.	4,766,720.00		4,766,720.00								4,766,720.00	
Chaoyang Zhongan Water Service Co., Ltd.	28,800,000.00	35,188,948.76			1,452,051.75			450,000.00			36,191,000.51	
Jinneng Holdings Shanxi Electric Power Co., Ltd.	772,132,549.00	775,782,993.43			19,841,160.22						795,624,153.65	
Xinjiang Electric Power Complete Equipment Co., Ltd.	450,000.00	421,861.68									421,861.68	421,861.68
Xinjiang Xinhua Chemical Fertilizer Co., Ltd.	120,269,744.60	120,269,744.60			-24,705,768.43						95,563,976.17	
Xinjiang Houyuan Supply Chain Technology Co.,	4,000,000.00		4,000,000.00								4,000,000.00	

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Ltd.												
Jarud Banner Tiejin Transportation Co., Ltd.	424,095,495.00	403,165,391.54			80,599,201.90		4,990,735.03				488,755,328.47	
Qingyun Shangde Wind Power Co., Ltd.	78,272,600.00	24,048,430.49	54,224,169.51		-147,000.00					-78,125,600.00		
Guangdong Yudean Huaqing Coal Gasification Combined Cycle Power Generation Co., Ltd.	3,500,000.00	3,500,000.00									3,500,000.00	
Shandong Green Energy Investment Co., Ltd.	222,000,000.00	30,039,874.30	192,000,000.00		178,466.80						222,218,341.10	
Shandong Energy and Environmental Trading Center Co., Ltd.	16,000,000.00	10,717,767.86			369,300.00						11,087,067.86	
Yibin Fuxi Fly Ash Development Co., Ltd.	6,562,522.66	9,857,960.85			2,941,760.77			3,285,658.10			9,514,063.52	
Ningxia Hongdunzi Coal Industry Co., Ltd.	440,000,000.00		360,000,000.00		-35,180,000.00						324,820,000.00	
Ningxia Zaoquan Power Generation Co., Ltd.	345,320,000.00	322,819,822.72			-33,160,000.00						289,659,822.72	
Tianjin New Hydrogen Energy Development Co., Ltd.	7,000,000.00		7,000,000.00		-149,265.29						6,850,734.71	
Datang Yemazhai Power Generation Co., Ltd.	61,440,000.00											
Datang Guizhou Faer Co., Ltd.	448,079,800.00	58,311,128.13			-58,311,128.13							
International Renewable Energy Service Center	2,220,000.00	7,291,936.61			1,548,271.82					221,338.37	9,061,546.80	
Sinopharm (Pingdingshan) Medical & Health Industry Co., Ltd.	24,442,698.41	24,442,698.41									24,442,698.41	

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NARI Jidian New Energy (Nanjing) Co., Ltd.	27,595,804.99	20,495,442.56			-562,581.27	-227,970.30					19,704,890.99	
China Nuclear Investment Co., Ltd.	31,418,238.24	24,013,214.72			1,886,037.54						25,899,252.26	
SPIC Yuanda Zhongxin Energy Saving and Environmental Protection Co., Ltd.	1,250,000.00											
SPIC Guizhou Jinyuan Suiyang Industrial Co., Ltd.	344,299,673.73		344,373,863.22								344,373,863.22	
SPIC Zhoushan Smart Ocean Energy Technology Co., Ltd.	52,863,444.00	19,440,000.00	33,423,444.00		27,909.04						52,891,353.04	
SPIC Liangjiang Yuanda Energy Saving and Environmental Protection Co., Ltd.	24,000,000.00	20,951,041.80	6,000,000.00		3,003,204.72						29,954,246.52	
Sichuan Energy Investment Development Co., Ltd.	230,349,524.67	229,430,434.82			27,390,000.00			9,803,920.00			247,016,514.82	
Chuanjing Coal Industry of Sichuan Guangwang Group	198,385,000.00	230,349,524.67									230,349,524.67	230,349,524.67
Hami United Chemical Co., Ltd.	3,704,395.21	3,704,395.21									3,704,395.21	3,704,395.21
Tongxin Longyuan Hechuang Electric Power Co., Ltd.	15,458,400.00	15,458,400.00									15,458,400.00	
Jidian Future Zhiwei Energy Technology (Jilin) Co., Ltd.	6,400,000.00		6,400,000.00								6,400,000.00	
Jilin Province Jidian International Trade Co., Ltd.					4,040,032.06						4,040,032.06	
Jilin Boda Biochemical Co., Ltd.	25,731,630.71	6,731,872.08									6,731,872.08	

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Nanyang Yahekou Power Generation Co., Ltd.	276,276,973.01	206,100,617.01			4,458,682.99						210,559,300.00	
Huaneng Shidaobay Nuclear Power Co., Ltd.	1,056,521,441.84	955,837,245.31	47,000,000.00								1,002,837,245.31	
Beijing Ronghe Shengyuan Power Sales Co., Ltd.	57,024,344.60	59,135,426.18		59,098,790.31	-36,635.87							
Beijing Dongcheng District Historical and Cultural City Protection Fund Management Co., Ltd.	25,000,000.00	24,291,282.65								-24,291,282.65		
Chuangdao (Shanghai) Intelligent Technology Co., Ltd.	7,200,000.00	1,757,441.35			-653,202.17						1,104,239.18	
Inner Mongolia Ludian Mengyuan Electric Power Engineering Co., Ltd.	3,000,000.00	4,886,318.11			-704,402.02						4,181,916.09	
Inner Mongolia Huomei Yicheng Energy Co., Ltd.	18,000,000.00	244,853,127.72							244,853,127.72		244,853,127.72	244,853,127.72
Inner Mongolia Zhongyou Huo Coal Oil Co., Ltd.	10,150,040.00	17,605,654.17			284,769.80						17,890,423.97	
Zhongneng Ronghe Intelligence Technology Co., Ltd.	51,000,000.00		51,000,000.00		29,004,667.38						80,004,667.38	
Zhongneng Ronghe Intelligence Technology Co., Ltd.	51,000,000.00	33,023,306.16		33,023,306.16								
Shanghai Chongming Beiyan Wind Power Co., Ltd.	37,214,800.00	42,692,988.12			2,899,604.22						45,592,592.34	
CNNC Henan Nuclear Power Co., Ltd.	40,000,000.00	40,000,000.00									40,000,000.00	

Investee	Investment cost	Balance as at January 1, 2020	Increase/decrease in 2020								Balance as at December 31, 2020	Balance of provision for impairment as at December 31, 2020
			Additional investment	Negative investment	Profit or loss on investments recognized by the equity method	Adjustment to other comprehensive income	Other changes in equities	Cash dividends or profits declared to be distributed	Provision for impairment	Others		
China Nuclear Baotou Nuclear Fuel Components Co., Ltd.	210,000,000.00	103,974,438.87			-22,022,585.30						81,951,853.57	
China Kangfu International Leasing Co., Ltd.	509,000,000.00				27,302,189.14	-25,510.68	852,227,880.18	17,032,480.23			862,472,078.41	
Zhongyuan Airport Industrial Investment Fund Management Co., Ltd.	15,000,000.00	20,087,157.33			-710,412.24			3,878,000.00			15,498,745.09	
Dongguan Zhongdian Xin'ao Heating Power Co., Ltd.	23,000,000.00	25,697,971.35			5,009,477.36						30,707,448.71	
Shanghai Ronghe Dianke Financial Leasing Co., Ltd.	175,000,000.00	178,815,149.10			34,791,795.58			2,746,907.35			210,860,037.33	
Shanghai Shunhua New Energy Systems Co., Ltd.	90,876,113.00		157,897,241.00								157,897,241.00	
Petrochemical Equipment Inspection & Testing Co., Ltd.	9,600,000.00	10,815,774.21			1,044,520.72			1,048,597.07			10,811,697.86	
Shanghai Shenergy Lingang CCGT Power Generation Co., Ltd.	431,550,000.00	546,762,506.02			67,230,455.26			68,950,000.00			545,042,961.28	
Shanghai Xin'an Shipping Co., Ltd.	55,000,000.00	32,637,179.06	22,000,000.00		-2,026,812.68						52,610,366.38	
Shanghai Nuclear Equipment Testing and Verification Center Limited	2,450,000.00	2,869,301.07			199,355.34						3,068,656.41	
Shanghai Nuclear Power Technology Equipment Co., Ltd.	2,000,000.00	2,938,246.04			1,067,902.23						4,006,148.27	
Shanghai Yitian New Energy Venture Investment Partnership (Limited Partnership)	102,000,000.00	100,121,374.38			-488,938.67						99,632,435.71	

Investee	Investment cost	Balance as at January 1, 2020	Increase/decrease in 2020								Balance as at December 31, 2020	Balance of provision for impairment as at December 31, 2020
			Additional investment	Negative investment	Profit or loss on investments recognized by the equity method	Adjustment to other comprehensive income	Other changes in equities	Cash dividends or profits declared to be distributed	Provision for impairment	Others		
Shanghai Yijiang New Energy Technology Co., Ltd.	1,500,000.00		1,500,000.00								1,500,000.00	
Shanghai Chongming Beiyan New Energy Power Co., Ltd.	1,000,000.00	1,000,000.00									1,000,000.00	1,000,000.00
Shanghai Wujing No.2 Power Generation Co., Ltd.	1,193,080,886.36	1,209,951,064.79			33,622,884.74			6,370,000.00			1,237,203,949.53	
Shanghai Jijia Overseas Engineering Co., Ltd.	25,500,000.00		25,500,000.00		-59,819.50						25,440,180.50	
Shanghai Donghai Wind Power Co., Ltd.	117,360,000.00	134,707,124.22			15,415,917.11			10,007,358.22			140,115,683.11	
Sanmen Nuclear Power Co., Ltd.	1,702,689,600.00	1,558,942,758.64	43,820,000.00		201,716,222.93	429,683.58	37,914.41				1,804,946,579.56	
VT3 Investment Ltd	19,202,610.00		19,202,610.00								19,202,610.00	
Vinh Tan 1 Power Company Limited	952,585,095.66	1,430,572,471.95			504,384,000.00			469,327,225.79			1,465,629,246.16	
PE los Huizaches SAPI de CV	138,279.60		138,279.60								138,279.60	
DOSTLUK ENERJI URETIM ANONIM SIRKETI	5,526,990.00											

8.21.3 Major financial information on significant joint ventures

Item	Year 2020			Year 2019		
	Shanghai Waigaoqiao No.2 Power Generation Co. Ltd.	Liaoning Hongyanhe Nuclear Power Co., Ltd.	Huaihu Coal & Power Co., Ltd.	Shanghai Waigaoqiao No.2 Power Generation Co. Ltd.	Liaoning Hongyanhe Nuclear Power Co., Ltd.	Huaihu Coal & Power Co., Ltd.
Current assets	2,053,732,163.64	8,638,652,577.06	680,039,418.68	1,579,338,207.77	6,880,604,227.11	564,877,304.51
Non-current assets	2,658,685,774.22	69,500,873,560.29	5,857,757,094.27	2,948,065,982.52	68,090,306,097.89	5,854,448,396.19
Total assets	4,712,417,937.86	78,139,526,137.35	6,537,796,512.95	4,527,404,190.29	74,970,910,325.00	6,419,325,700.70
Current liabilities	424,949,778.65	6,701,839,923.53	2,931,541,404.14	289,619,082.77	8,040,416,220.12	2,815,787,013.84
Non-current liabilities	47,338,210.00	54,117,098,196.32	956,821,912.19	55,431,650.00	50,637,329,974.79	988,799,753.27
Total liabilities	472,287,988.65	60,818,938,119.85	3,888,363,316.33	345,050,732.77	58,677,746,194.91	3,804,586,767.11
Net asset	4,240,129,949.21	17,320,588,017.50	2,649,433,196.62	4,182,353,457.52	16,293,164,130.09	2,614,738,933.59
Net asset shares calculated according to the shareholding ratios	848,025,989.84	7,794,264,607.87	1,313,324,035.56	836,470,691.50	7,139,868,325.20	1,296,126,089.38
Adjusted items	2,166,153.06	-245,672,519.61	-3,782,719.19	2,166,153.06		-3,352,767.38
Book value of the equity investment in joint ventures	850,192,142.90	7,548,592,088.26	1,309,541,316.37	838,636,844.56	7,139,868,325.20	1,292,773,322.00
Fair value of the publicly quoted equity investments						
Operating income	2,827,544,943.25	9,612,902,762.42	3,236,641,764.91	2,671,311,350.19	9,530,209,719.03	3,529,184,136.76
Financial expenses	-11,032,342.85	1,747,217,182.20	135,535,552.99	-15,551,570.35	1,873,601,614.53	149,498,865.41
Income tax expenses	123,651,176.00	227,601,021.85	27,002,169.96	98,186,453.15	178,414,491.68	35,256,227.73
Net profit	377,776,491.69	1,199,409,783.71	79,810,963.03	303,335,832.17	1,070,625,490.71	109,839,840.23
Other comprehensive income		433,550,857.36				
Total comprehensive income	377,776,491.69	1,632,960,641.07	79,810,963.03	303,335,832.17	1,070,625,490.71	109,839,840.23
Dividends received from joint ventures in the current period	64,000,000.00	433,550,857.36	50,000,000.00	84,000,000.00	54,025,616.61	165,000,000.00

8.21.4 Main financial information on major associates

Item	Year 2020			Year 2019		
	Qinshan Third Nuclear Power Co., Ltd.	Jiangsu Nuclear Power Co., Ltd.	Vinh Tan 1 Power Company Limited	Jiangsu Nuclear Power Co., Ltd.	Guizhou Railway Investment Co., Ltd.	Shanghai Shenergy Lingang CCGT Power Generation Co., Ltd.
Current assets	6,526,263,840.66	7,113,641,550.94	1,829,900,506.46	6,780,176,950.60	11,258,503,098.85	643,341,599.69
Non-current assets	4,924,046,613.18	73,780,890,562.75	9,120,120,175.34	73,763,253,353.33	38,725,128,044.31	2,056,121,921.14
Total assets	11,450,310,453.84	80,894,532,113.69	10,950,020,681.80	80,543,430,303.93	49,983,631,143.16	2,699,463,520.83
Current liabilities	443,167,031.98	11,583,430,228.06	1,275,398,621.03	6,587,349,085.48	3,238,494,064.05	834,889,664.91
Non-current liabilities	4,254,331,844.74	49,309,302,851.62	5,950,124,266.33	55,056,868,625.82	14,617,937,030.00	302,834,147.50
Total liabilities	4,697,498,876.72	60,892,733,079.68	7,225,522,887.36	61,644,217,711.30	17,856,431,094.05	1,137,723,812.41
Net asset	6,752,811,577.12	20,001,799,034.01	3,724,497,794.44	18,899,212,592.63	32,127,200,049.11	1,561,739,708.42
Net asset shares calculated according to the shareholding ratios	1,350,562,315.42	6,000,539,710.20	1,465,629,246.16	5,691,182,913.80	2,548,194,816.14	546,608,897.95
Adjusted items	3,164,988.10	36,100,654.78				153,608.07
Book value of the equity investment in associated enterprises	1,353,727,303.52	6,036,640,364.98	1,465,629,246.16	5,691,182,913.80	2,548,194,816.14	546,762,506.02

Item	Year 2020			Year 2019		
	Qinshan Third Nuclear Power Co., Ltd.	Jiangsu Nuclear Power Co., Ltd.	Vinh Tan 1 Power Company Limited	Jiangsu Nuclear Power Co., Ltd.	Guizhou Railway Investment Co., Ltd.	Shanghai Shenergy Lingang CCGT Power Generation Co., Ltd.
Fair value of the publicly quoted equity investments						
Operating income	4,161,921,620.03	11,466,193,236.65	4,537,867,311.76	11,056,632,790.61	6,171,219,715.95	1,923,524,290.18
Net profit	1,571,215,340.85	2,173,430,411.13	1,261,788,660.45	2,118,398,209.94	276,718,926.47	218,862,464.99
Other comprehensive income	2,135,799.55					
Total comprehensive income	1,573,351,140.40	2,173,430,411.13	1,261,788,660.45	2,118,398,209.94	276,718,926.47	218,862,464.99
Dividends received from associates in current period	230,200,000.00	537,900,000.00	469,327,225.79	441,000,000.00		69,650,000.00

8.21.5 Summary of insignificant joint ventures and associates

Item	Year 2020	Year 2019
Joint ventures:		
Total book value of investments	6,873,047,832.20	6,335,771,574.28
Total amounts of the following items calculated at shareholding ratio		
Net profit	674,877,074.27	394,362,694.61
Other comprehensive income	-192,871,150.74	-35,443,894.26
Total comprehensive income	482,005,923.53	358,918,800.35
Associates:		
Total book value of investments	18,029,784,961.74	11,827,593,329.55
Total amounts of the following items calculated at shareholding ratio		
Net profit	4,685,078,409.75	-275,998,920.36
Other comprehensive income	2,047,836.89	-1,682,866.04
Total comprehensive income	4,687,126,246.64	-277,681,786.40

8.22 Investment in other equity instruments

8.22.1 Details of other equity instrument investment

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Huainan Mining (Group) Co., Ltd.	200,283,018.87	200,283,018.87
Anhui Wuhu Nuclear Power Co., Ltd.	28,000,000.00	28,000,000.00
Hainan International Energy Exchange	27,000,000.00	8,100,000.00
Jiangsu Baling Conch Cement Co., Ltd.	8,240,000.00	8,240,000.00
Yancheng Hengli Venture Capital Co., Ltd.	5,325,000.00	5,325,000.00
Shanghai Power Exchange Center Co., Ltd.	5,000,255.00	

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Xinhong Coal Industry Co., Ltd., Shandong Wangchao Coal Electricity Group	4,500,000.00	4,500,000.00
Zhongneng Fuel Logistics Co., Ltd.	4,000,000.00	4,000,000.00
Jiangsu Power Exchange Center Co., Ltd.	2,985,676.06	
Zhejiang Power Exchange Center Co., Ltd.	1,769,095.00	
Shanghai Electric Power Design Institute Co., Ltd.	1,000,000.00	1,000,000.00
China Energy United Power Fuel Co., Ltd.	900,000.00	900,000.00
Xinjiang Alar Xinhu Thermal Power Co., Ltd.		8,000,000.00
Alltrust Property Insurance Company Ltd.	130,974,726.00	120,720,307.69
Bank of Zhengzhou Co., Ltd.	1,102,265,240.62	481,694,655.66
Gongyi Pufa Village Bank	11,504,312.38	12,154,303.42
Bianjing Rural Commercial Bank	43,328,144.64	53,870,094.40
Lanzhou New District Jinxiu Silk Road Industrial Investment Fund Management Co., Ltd.	4,900,431.70	5,059,339.42
Changzhou Shangying Investment Co., Ltd.		242,212.25
Shanghai Chengding Venture Capital Co., Ltd.	169,382.00	1,490,819.04
Yangtze Power 600900	35,451,748.00	34,008,514.00
China Construction Bank 601939	38,556,060.00	33,630,345.00
CITIC Securities 600030		13,398,880.00
19 Bank of China Perpetual Bonds 01	627,430,200.00	630,988,200.00
Chongqing Tongxing Rubbish Treatment Co., Ltd.	24,100,000.00	24,100,000.00
Jiangsu-Shanxi Energy Holdings Limited	19,000,000.00	19,000,000.00
Hubei Electric Power Exchange Co., Ltd.	5,000,000.00	5,000,000.00
Guizhou Wenjiaba Mining Industry Co., Ltd.	59,272,980.51	54,941,362.10
Huainan Mining (Group) Co., Ltd.	228,986,900.76	202,315,100.00
Guian New District Electricity Distribution Co., Ltd.	80,000,000.00	80,000,000.00
Anhui Power Exchange Center	4,700,000.00	

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Shandong Power Exchange Center Co., Ltd.	3,010,500.00	
Shanghai Donghai Wind Power Co., Ltd.	114,879,241.28	114,879,241.28
Equity of Jilin Electric Power Research Institute Co., Ltd.	6,510,000.00	6,510,000.00
Hengqin Jidian Green Energy Industrial Investment Fund (Limited Partnership)		246,582,000.00
Equity of Jilin Power Exchange Center Co., Ltd.	2,500,475.00	
Investment of Shndh Engro Coal Mining Company	65,249,000.00	69,762,000.00
Inner Mongolia Huoning Carbon Co., Ltd.	20,000,000.00	20,000,000.00
Total	2,916,792,387.82	2,498,695,393.13

8.22.2 Details of other equity instruments as at December 31, 2020

Item name	Dividend income recognized in 2020	Accumulated gains	Accumulated losses	Amount of other comprehensive income transferred to retained earnings	Reasons for financial assets designated to be measured at fair value through other comprehensive income	Reasons for other comprehensive income transferred to retained earnings
Jiangsu Baling Conch Cement Co., Ltd.	1,960,000.00				Plan to hold for a long time	--
Yancheng Hengli Venture Capital Co., Ltd.	360,000.00				Plan to hold for a long time	--
Xinhong Coal Industry Co., Ltd., Shandong Wangchao Coal Electricity Group			9,099,924.42		Plan to hold for a long time	--
Xinjiang Alar Xinhu Thermal Power Co., Ltd.			8,000,000.00		Plan to hold for a long time	--
Alltrust Property Insurance Company Ltd.		30,974,726.00			Plan to hold for a long time	--
Bank of Zhengzhou Co., Ltd.	11,469,714.90	6,437,169.62			Plan to hold for a long time	--
Gongyi Pufa Village Bank		3,704,312.38			Plan to hold for a long time	--
Bianjing Rural Commercial Bank			23,227,055.36		Plan to hold for a long time	--
Lanzhou New District Jinxiu Silk Road Industrial Investment Fund Management Co., Ltd.			799,568.30		Plan to hold for a long time	--

Item name	Dividend income recognized in 2020	Accumulated gains	Accumulated losses	Amount of other comprehensive income transferred to retained earnings	Reasons for financial assets designated to be measured at fair value through other comprehensive income	Reasons for other comprehensive income transferred to retained earnings
Changzhou Shangying Investment Co., Ltd.			1,900,000.00		Plan to hold for a long time	--
Shanghai Chengding Venture Capital Co., Ltd.		43,965.00			Plan to hold for a long time	--
Yangtze Power	1,258,204.00	5,448,867.48			Plan to hold for a long time	--
China Construction Bank	1,964,640.00		11,336,794.54		Plan to hold for a long time	--
CITIC Securities	264,800.00			5,617,838.52	Plan to hold for a long time	Sale
BOC Perpetual bonds	27,000,000.00	27,430,200.00			Plan to hold for a long time	
Chongqing Tongxing Rubbish Treatment Co., Ltd.	2,913,445.26	9,100,000.00			Plan to hold for a long time	
Jiangsu-Shanxi Energy Holdings Limited	227,772.60				Plan to hold for a long time	
Guizhou Wenjiaba Mining Industry Co., Ltd.			16,480,462.49		Plan to hold for a long time	
Huainan Mining (Group) Co., Ltd.		28,986,900.76			Plan to hold for a long time	
Shanghai Donghai Wind Power Co., Ltd.	9,679,919.10				Plan to hold for a long time	
Jilin Electric Power Research Institute Co., Ltd.	1,106,700.00	1,106,700.00			Plan to hold for a long time	
Hengqin Jidian Green Energy Industrial Investment Fund (Limited Partnership)	40,515,491.39	40,515,491.39			Plan to hold for a long time	
Hualv Industrial Investment Co., Ltd.			4,000,000.00		Plan to hold for a long time	
Inner Mongolia Huo Coal Hongjun High Precision Aluminum Company			6,300,000.00		Plan to hold for a long time	
Inner Mongolia Huo Coal Hongjun Aluminum Flat Ingot Co., Ltd.			10,229,305.89		Plan to hold for a long time	

8.23 Other non-current financial assets

Item	Fair value as at December 31, 2020	Fair value as at December 31, 2020
Qinghai Beixiang		26,700,000.00
CITIC Poly Fund	47,500,000.00	
Others		170,470,379.36
Total	47,500,000.00	197,170,379.36

8.24 Investment properties

Measured at fair value

Item	Fair value as at January 1, 2020	Increase in 2020			Decrease in 2020		Fair value as at December 31, 2020
		Purchase	Self-use property or property transferred in from inventories	Gains or losses from changes in fair value	Disposal	Transferred to owner-occupied property	
I. Total costs	3,733,272,301.66	36,942,115.37	314,959,798.32		14,891,293.63	1,027,568,874.07	3,042,714,047.65
Including: 1. buildings and constructions	3,565,788,232.92	3,079,140.37	298,059,798.32		3,900,563.07	906,449,534.43	2,956,577,074.11
2. Land use right	167,484,068.74	33,862,975.00	16,900,000.00		10,990,730.56	121,119,339.64	86,136,973.54
II. Total changes in fair value	455,332,400.78		-15,173,305.98	390,522,697.01	15,478,704.37	332,270.57	814,870,816.87
Including: 1. buildings and constructions	455,437,983.38		-15,340,065.41	404,209,563.38	1,001,834.93	2,086,025.99	841,219,620.43
2. Land use right	-105,582.60		166,759.43	-13,686,866.37	14,476,869.44	-1,753,755.42	-26,348,803.56
III. Total book value of investment property	4,188,604,702.44	36,942,115.37	299,786,492.34	390,522,697.01	30,369,998.00	1,027,901,144.64	3,857,584,864.52
Including: 1. buildings and constructions	4,021,226,216.30	3,079,140.37	282,719,732.91	404,209,563.38	4,902,398.00	908,535,560.42	3,797,796,694.54
2. Land use right	167,378,486.14	33,862,975.00	17,066,759.43	-13,686,866.37	25,467,600.00	119,365,584.22	59,788,169.98

8.25 Fixed assets

Item	Book value as at December 31, 2020	Book value as at January 1, 2020
Fixed assets	685,279,517,205.98	604,176,278,367.64
Disposal of fixed assets	531,151,370.11	531,942,714.99
Total	685,810,668,576.09	604,708,221,082.63

8.25.1 Details of fixed assets

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
I. Total original book value:	915,333,743,112.74	138,834,662,777.28	24,859,078,304.89	1,029,309,327,585.13
Including: land assets	605,624,161.79	12,455,700.31	60,426,230.75	557,653,631.35
Buildings and constructions	249,527,751,923.98	16,328,407,236.65	5,379,409,022.45	260,476,750,138.18
Machinery equipment	588,176,662,210.28	109,103,541,942.72	18,501,148,680.35	678,779,055,472.65
Transportation facilities	5,046,145,561.18	267,179,407.38	291,910,908.03	5,021,414,060.53
Electronic equipment	1,030,927,776.88	405,355,004.14	36,952,402.19	1,399,330,378.83
Office facilities	1,171,241,453.65	469,142,487.11	32,361,400.40	1,608,022,540.36
Others	69,775,390,024.98	12,248,580,998.97	556,869,660.72	81,467,101,363.23
II. Total accumulated depreciation:	300,098,412,493.55	42,884,418,434.20	11,698,388,648.02	331,284,442,279.73
Including: land assets				
Buildings and constructions	82,863,402,792.83	8,271,421,887.69	2,852,837,308.93	88,281,987,371.59
Machinery equipment	207,305,390,491.43	31,843,405,773.75	8,428,725,798.53	230,720,070,466.65
Transportation facilities	3,488,416,146.53	333,607,971.73	258,638,048.98	3,563,386,069.28
Electronic equipment	595,439,109.37	223,170,059.21	26,872,747.05	791,736,421.53
Office facilities	783,014,635.82	291,741,223.98	31,320,117.84	1,043,435,741.96
Others	5,062,749,317.57	1,921,071,517.84	99,994,626.69	6,883,826,208.72
III. Total net book value of fixed assets	615,235,330,619.19			698,024,885,305.40
Including: land assets	605,624,161.79			557,653,631.35
Buildings and constructions	166,664,349,131.15			172,194,762,766.59
Machinery equipment	380,871,271,718.85			448,058,985,006.00
Transportation facilities	1,557,729,414.65			1,458,027,991.25
Electronic equipment	435,488,667.51			607,593,957.30
Office facilities	388,226,817.83			564,586,798.40
Others	64,712,640,707.41			74,583,275,154.51
IV. Total provision for impairment	11,059,052,251.55	2,431,961,432.14	745,645,584.27	12,745,368,099.42
Including: land assets				
Buildings and constructions	2,851,765,866.30	644,179,112.24	116,549,264.30	3,379,395,714.24
Machinery equipment	7,972,909,473.54	1,786,910,089.19	533,934,947.67	9,225,884,615.06
Transportation facilities	7,035,838.37	611,329.73	3,398,905.14	4,248,262.96

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
Electronic equipment	164,115.49	260,900.98	48,832.88	376,183.59
Office facilities	682,281.40		241.36	682,040.04
Others	226,494,676.45		91,713,392.92	134,781,283.53
V. Total book value of fixed assets	604,176,278,367.64			685,279,517,205.98
Including: land assets	605,624,161.79			557,653,631.35
Buildings and constructions	163,812,583,264.85			168,815,367,052.35
Machinery equipment	372,898,362,245.31			438,833,100,390.94
Transportation facilities	1,550,693,576.28			1,453,779,728.29
Electronic equipment	435,324,552.02			607,217,773.71
Office facilities	387,544,536.43			563,904,758.36
Others	64,486,146,030.96			74,448,493,870.98

8.25.2 Situation of temporarily idle fixed assets

Item	Original book value	Accumulated depreciation	Provision for impairment	Book value	Remark
Buildings and constructions	2,728,323,913.74	226,056,047.57	61,929,575.96	2,440,338,290.21	
Machinery equipment	840,188,284.14	269,609,458.31	41,756,447.90	528,822,377.93	
Transportation facilities	33,986,536.08	27,582,411.92		6,404,124.16	
Electronic equipment	4,746,369.90	3,720,594.77		1,025,775.13	
Office facilities	1,263,833.52	1,263,833.52			
Others	143,198,018.69	27,462,951.30	1,686,037.75	114,049,029.64	
Total	3,751,706,956.07	555,695,297.39	105,372,061.61	3,090,639,597.07	

8.25.3 Fixed assets with certificates of title uncompleted

Item	Book value	Reason for failure to complete the formalities for the certificate of title
Buildings and constructions	1,509,326,992.95	The certificates of title are being processed

8.25.4 Disposal of fixed assets

Item	Book value as at December 31, 2020	Book value as at January 1, 2020	Reasons for disposal
Assets from unit shutdown	403,820,659.64	414,396,655.94	Unit shutdown
Net value of other scrapped fixed assets	127,330,710.47	117,546,059.05	Transferred from scrapped fixed assets
Total	531,151,370.11	531,942,714.99	

8.26 Construction in progress

Item	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Construction in progress	176,018,736,621.37	2,829,495,613.09	173,189,241,008.28	148,845,851,411.66	3,067,435,692.37	145,778,415,719.29
Project materials	5,579,637,717.26	32,873,813.69	5,546,763,903.57	11,750,336,024.10	34,109,313.69	11,716,226,710.41

Item	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Total	181,598,374,338.63	2,862,369,426.78	178,736,004,911.85	160,596,187,435.76	3,101,545,006.06	157,494,642,429.70

8.26.1 Construction in progress

Item	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
PWR Demonstration Project	18,093,590,567.52		18,093,590,567.52	6,418,590,425.16		6,418,590,425.16
Haiyang Nuclear Power Phase II Project	14,773,617,901.35		14,773,617,901.35	13,852,160,608.15		13,852,160,608.15
Yangqu Hydropower Station	8,642,184,065.81		8,642,184,065.81	8,128,640,767.50		8,128,640,767.50
Pengze Nuclear Power Project	3,796,181,440.80		3,796,181,440.80	3,641,505,493.42		3,641,505,493.42
Construction in Progress of Turkey H Power Station Project	3,719,222,056.82		3,719,222,056.82	847,756,445.02		847,756,445.02
Early-stage of Summer Hamu Project	2,409,452,486.02		2,409,452,486.02	1,875,613,487.69		1,875,613,487.69
Jiangsu Rudong H4-400MW Offshore Wind Power Plant Project	2,401,851,608.67		2,401,851,608.67	23,316,121.23		23,316,121.23
Jianke Hydropower Station Infrastructure (Sichuan)	2,283,208,894.28		2,283,208,894.28	1,925,040,780.25		1,925,040,780.25
Jiangjiasha Offshore Wind Power Plant Project	2,201,336,560.45		2,201,336,560.45			
Phase I Project of High-precision Aluminum Strip	2,167,875,707.63		2,167,875,707.63	709,748,597.19		709,748,597.19
Other projects	115,530,215,332.02	2,829,495,613.09	112,700,719,718.93	111,423,478,686.05	3,067,435,692.37	108,356,042,993.68
Total	176,018,736,621.37	2,829,495,613.09	173,189,241,008.28	148,845,851,411.66	3,067,435,692.37	145,778,415,719.29

8.26.2 Changes in important construction in progress in 2020

Item	Budget amount	Balance as at January 1, 2020	Increase in 2020	Amount transferred to fixed assets in 2020	Other decreases in 2020	Balance as at December 31, 2020	Proportion of accumulated project investment in budget (%)	Progress of construction	Accumulated capitalized amount of interest	Including: capitalized amount of interest in 2020	Capitalization rate of interest in 2020 (%)	Source of funds
PWR Demonstration Project	55,315,130,000.00	6,418,590,425.16	11,887,710,142.36	212,710,000.00		18,093,590,567.52	31.43	35.29	1,956,668,759.12	597,287,543.19	3.74	Self-owned funds and loans
Haiyang Nuclear Power Phase II Project	47,000,000,000.00	13,852,160,608.15	1,853,059,272.96		931,601,979.76	14,773,617,901.35	32.71	43.60	2,890,564,464.82	460,426,508.27	3.90	Self-owned funds and loans
Yangqu Hydropower Station	14,018,973,300.00	8,128,640,767.50	513,543,298.31			8,642,184,065.81	69.66	61.64	1,687,145,580.97	282,657,488.80	4.50	Self-owned funds and loans
Pengze Nuclear Power Project		3,641,505,493.42	154,675,947.38			3,796,181,440.80			1,015,153,731.57	118,416,932.36	4.85	Self-owned funds and loans
Construction in Progress of Turkey H Power Station Project	12,225,999,786.00	847,756,445.02	2,871,465,611.80			3,719,222,056.82	31.96	31.96	95,768,394.82	64,863,808.52	2.11	Self-owned funds and loans
Early-stage of Summer Hamu Project	5,104,100,000.00	1,875,613,487.69	533,838,998.33			2,409,452,486.02	53.34	47.00	77,682,267.55	33,154,454.14	4.57	Self-owned funds and loans
Jiangsu Rudong H4-400MW Offshore Wind Power Plant Project	6,951,623,000.00	23,316,121.23	2,378,535,487.44			2,401,851,608.67	34.55	35.00	21,227,047.92	21,208,681.25	4.03	Self-owned funds and loans
Jianke Hydropower Station Infrastructure (Sichuan)	2,658,139,292.87	1,925,040,780.25	358,168,114.03			2,283,208,894.28	85.90	85.90	310,655,692.88			Self-owned funds and loans
Jiangjiasha Offshore Wind Power Plant Project	4,680,000,000.00		3,799,559,812.19	1,598,223,251.74		2,201,336,560.45	82.00	82.00	223,701,693.40	223,701,693.40	4.50	Self-owned funds and loans
Phase I Project of High-precision Aluminum Strip	3,344,191,800.00	709,748,597.19	1,458,127,110.44			2,167,875,707.63	79.52	79.52	110,604,116.90	81,681,497.17	4.60	Self-owned funds and loans
Total	151,298,157,178.87	37,422,372,725.61	25,808,683,795.24	1,810,933,251.74	931,601,979.76	60,488,521,289.35			8,389,171,749.95	1,883,398,607.10		

Remark: Haiyang Nuclear Power Phase II Project is the construction in progress of Shandong Nuclear Power Company Ltd., a subsidiary of the Company. The company included the natural uranium of the first furnace in construction in progress for accounting. In the later period, the Company's subsidiary, National Nuclear Uranium Industry Development Co., Ltd., possessed the capability and technology for nuclear fuel assembly processing. At the end of 2019, it was responsible for the refueling work and nuclear fuel components processing of Shandong Nuclear Power Company Ltd., including the procurement, purification, and processing of nuclear fuel components. In 2020, Shandong Nuclear Power Company Ltd. sold the natural uranium purchased in the previous years to National Nuclear Uranium Industry Development Co., Ltd., resulting in a decrease of RMB 931,601,979.76 in the item of others under construction in progress in 2020.

8.26.3 Provision for impairment of construction in progress in 2020

Item	Provision in 2020	Reason for provision
SPIC Guangdong Qianzhan Power Plant 2*1000MW coal-fired generating unit project	411,688,600.00	Changes in the policies for coal-fired power development
Xinmin City Jinwutaizi Photovoltaic Power Project	34,631,053.17	Construction ceased
Lvyuan Xinmin City Hongqi Photovoltaic Power Project	25,572,357.36	Construction ceased
Early Stage of Pingxiangshan Power Generation Phase II Project	24,938,034.48	Early-stage project have been suspended
Natural Gas Multi-generation Project in Wuhan, Hubei	14,860,446.88	Affected by policies, and the advancing of the project was hampered
Early-stage expenses of Xizhongdao Thermal Power Project	10,865,184.63	Construction ceased
Research and operation of coal-fired and urban biomass coupling power generation pilot system	7,879,137.61	Project suspended
Harbin Minzhu Thermal Power Project	6,405,927.89	Project suspended
Huanghua 28Wmp Photovoltaic Power Project	5,860,713.20	Project stagnation
Tianmen Economic Development Zone Natural Gas Distributed Project of Hubei Branch	5,199,844.00	Affected by policies, and the advancing of the project was hampered
Hebei Weichang Phase I 30MW Photovoltaic Project	4,673,826.14	Project suspended
Zhaqi Arikundu Cold Wind Farm Phase V Project	4,100,070.00	Preliminary procedures such as land acquisition and development and construction work cannot be carried out
Atushi Project	3,862,387.08	Project suspended
Research and development of multi-link high-efficiency heat energy utilization system for coal-fired coupled waste-to-energy project	3,660,000.00	Project suspended
Osaka Sitiaozhui Project	3,438,782.98	Project suspended
Hebei Handan Fengfeng 50MW Photovoltaic Power Project	2,474,053.32	Project suspended
Early stage of Changzhou Hydropower Project	2,327,000.00	The project test indicators fail to meet the expected standards and have no value for promotion

Item	Provision in 2020	Reason for provision
Transformation of Qinghe No. 8 Unit Heat Supply Capacity Expansion	2,307,547.17	Construction ceased
Tiandong Jiangbei Wind power Project	2,215,966.46	Wind energy resources do not meet the requirements of reserve projects
110MW Distributed Photovoltaic Power Generation Project in Xinxian County	1,743,905.49	Project suspended
GAC Gonow Distributed Rooftop Photovoltaic Project	1,603,735.10	Project suspended
Shantou Songshan Multi-generation Gas Energy Station Project	1,583,094.34	Project suspended
Natural Gas Multi-generation Energy Project in Suizhou, Hubei	1,539,709.12	Affected by policies, and the advancing of the project was hampered
Linfeng wind power project in Tiandong County	1,350,132.58	Wind energy resources do not meet the requirements of reserve projects
Photovoltaic Project in Lingxian County (Dingdong Reservoir), Dezhou City	1,342,885.25	Project suspended
Early stage of Xinhongpu wind power project in Fengxian County	1,317,766.10	Early-stage project have been suspended
Tiandong Jiangbei Project	1,116,816.27	Wind energy resources do not meet the requirements of reserve projects
Kuidesu photovoltaic power generation project	1,103,981.00	Construction ceased
SPIC Anqiu photovoltaic power generation project	1,018,523.92	Project suspended
Other projects	4,581,427.56	The project is suspended and the wind energy resources do not meet the requirements of reserve projects
Total	595,262,909.10	

8.26.4 Project materials

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Special materials	574,316,784.31	1,474,165,134.78
Special equipment	1,833,315,598.45	8,360,126,964.32
Tools and instruments	302,314,873.39	11,034,963.86
Others	2,836,816,647.42	1,870,899,647.45
Total	5,546,763,903.57	11,716,226,710.41

8.27 Right-of-use assets

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
I. Total original book value:	5,867,479,665.71	876,785,602.62	907,401,531.01	5,836,863,737.32
Including: buildings and constructions	2,155,406,030.60	206,301,172.82	110,620,694.86	2,251,086,508.56
Machinery equipment	1,575,837,281.76	599,460,919.16	758,158,557.55	1,417,139,643.37
Means of transportation	1,192,833.65	243,686.45	591,804.65	844,715.45
Others	2,135,043,519.70	70,779,824.19	38,030,473.95	2,167,792,869.94
II. Total accumulated depreciation:	573,861,403.63	311,910,773.50	102,844,503.59	782,927,673.54
Including: buildings and constructions	250,556,307.51	114,974,612.01	5,869,041.56	359,661,877.96
Machinery equipment	232,495,300.59	84,404,298.36	95,626,579.90	221,273,019.05
Means of transportation	331,759.87	380,839.09	371,470.07	341,128.89
Others	90,478,035.66	112,151,024.04	977,412.06	201,651,647.64
III. Total net book value of right-of-use assets	5,293,618,262.08			5,053,936,063.78
Including: buildings and constructions	1,904,849,723.09			1,891,424,630.60
Machinery equipment	1,343,341,981.17			1,195,866,624.32
Means of transportation	861,073.78			503,586.56
Others	2,044,565,484.04			1,966,141,222.30
IV. Total provision for impairment	8,757,980.17			8,757,980.17
Including: buildings and constructions	8,757,980.17			8,757,980.17
Machinery equipment				
Means of transportation				
Others				
V. Total book value of right-of-use assets	5,284,860,281.91			5,045,178,083.61

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
Including: buildings and constructions	1,896,091,742.92			1,882,666,650.43
Machinery equipment	1,343,341,981.17			1,195,866,624.32
Means of transportation	861,073.78			503,586.56
Others	2,044,565,484.04			1,966,141,222.30

8.28 Intangible assets

8.28.1 Breakdown of intangible assets

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
I. Total original cost	43,126,364,276.78	10,751,206,109.34	2,165,890,239.83	51,711,680,146.29
Including: patent right	1,060,587,470.97	214,988,606.96	280,445.78	1,275,295,632.15
Trademark right	184,257.59		98,300.00	85,957.59
Land use right	18,609,709,598.26	1,370,229,470.23	506,486,557.66	19,473,452,510.83
Non-patent technology	3,232,565,933.45	289,108,370.84	2,880.00	3,521,671,424.29
Right to use house property	566,552.75	2,532,000.00		3,098,552.75
Prospecting rights	217,611,397.16	514,896.97	18,030,869.24	200,095,424.89
Franchise	5,355,159,718.82	6,910,534.55	-15,365,964.12	5,377,436,217.49
Mining rights	5,364,575,648.94	5,467,306,175.18	205,121,427.25	10,626,760,396.87
Software	2,166,550,527.18	480,433,468.02	47,222,989.59	2,599,761,005.61
Others	7,118,853,171.66	2,919,182,586.59	1,404,012,734.43	8,634,023,023.82
II. Total accumulated amortization	7,085,992,964.09	1,517,835,951.15	278,353,054.04	8,325,475,861.20
Including: patent right	215,893,616.28	141,604,174.12	107,735.43	357,390,054.97
Trademark right	171,545.87	3,146.18	95,700.00	78,992.05
Land use right	2,660,772,408.16	459,988,816.05	241,398,703.33	2,879,362,520.88
Non-patent technology	1,216,168,714.61	274,024,274.22	694,643.80	1,489,498,345.03
Right to use house property	154,965.86	134,606.25		289,572.11
Prospecting rights	2,924,861.38	317,122.80	17,902.50	3,224,081.68
Franchise	666,179,824.72	98,768,722.10	-3,201,399.72	768,149,946.54
Mining rights	642,572,956.46	113,722,262.43	1,879,942.50	754,415,276.39
Software	995,945,602.18	244,682,075.90	25,014,521.84	1,215,613,156.24
Others	685,208,468.57	184,590,751.10	12,345,304.36	857,453,915.31
III. Total amount of provision for impairment of intangible assets	986,460,454.10	164,869,173.42	169,289,416.15	982,040,211.37
Including: patent right				
Trademark right				
Land use right	6,696,656.03	46,312,500.00		53,009,156.03
Non-patent technology	7,169,197.11			7,169,197.11
Right to use house property				
Prospecting rights	2,363,368.32			2,363,368.32
Franchise				
Mining rights	780,001,571.87	112,214,351.04	169,289,416.15	
Software	5,653,015.55	39,100.00		

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
Others	184,576,645.22	6,303,222.38		
IV. Total book value	35,053,910,858.59			42,404,164,073.72
Including: patent right	844,693,854.69			917,905,577.18
Trademark right	12,711.72			6,965.54
Land use right	15,942,240,534.07			16,541,080,833.92
Non-patent technology	2,009,228,021.73			2,025,003,882.15
Right to use house property	411,586.89			2,808,980.64
Prospecting rights	212,323,167.46			194,507,974.89
Franchise	4,688,979,894.10			4,609,286,270.95
Mining rights	3,942,001,120.61			9,872,345,120.48
Software	1,164,951,909.45			1,384,147,849.37
Others	6,249,068,057.87			7,776,569,108.51

8.28.2 Land use right with pending certificates of title

Item	Book value	Reason for pending certificates of title
Land use right	294,488,731.42	It is going through the formalities.
Right to use sea areas	11,659,705.08	It is going through the formalities.
Total	306,148,436.50	

8.29 Development expenses

Item	Balance as at January 1, 2020	Increase in 2020		Decrease in 2020			Balance as at December 31, 2020
		Internal development expenses	Others	Recognized as intangible assets	Transferred in the current profit or loss	Others	
Research and development of 300MW heavy-duty gas turbine products	1,171,618,024.15	1,772,396,520.52			2,627,767.09		2,941,386,777.58
Cooperative research and development of 10R002N-5 reactor protection system safety platform and reactor protection system (phase II)	826,623,849.30	390,274,483.99					1,216,898,333.29
AP1000 third generation nuclear power technology	815,882,562.09		15,344,819.33			226,812,170.40	604,415,211.02
Research on operation and maintenance technology of CAP1400 Nuclear Power Plant	261,236,761.90	113,294,693.57					374,531,455.47

Item	Balance as at January 1, 2020	Increase in 2020		Decrease in 2020			Balance as at December 31, 2020
		Internal development expenses	Others	Recognized as intangible assets	Transferred in the current profit or loss	Others	
VO03 technology transfer	164,659,917.91	16,700,758.88					181,360,676.79
Research on Digital Technical Support System for CAP1400 Demonstration Project	46,809,974.64	80,521,232.51					127,331,207.15
Los Arandanos	97,531,130.35	140,618.80			6,752,318.03		90,919,431.12
Technical verification of 400MW heavy gas turbine	27,899,188.74	45,311,698.43					73,210,887.17
AP1000 nuclear island, fuel operation and maintenance technology	62,171,718.52	5,007,921.95					67,179,640.47
Research and Development of CAP1400 Autonomous Fuel Assembly - Stage II:	36,608,014.54	29,987,451.30					66,595,465.84

Item	Balance as at January 1, 2020	Increase in 2020		Decrease in 2020			Balance as at December 31, 2020
		Internal development expenses	Others	Recognized as intangible assets	Transferred in the current profit or loss	Others	
Research and Development of Pilot Components and Related Components							
Other development expenses	2,234,377,291.53	1,927,536,219.82	26,202,567.93	446,024,245.25	666,540,623.18	35,991,066.74	3,039,560,144.11
Total	5,745,418,433.67	4,381,171,599.77	41,547,387.26	446,024,245.25	675,920,708.30	262,803,237.14	8,783,389,230.01

8.30 Goodwill

8.30.1 Book value of goodwill

Name of the investee or matters forming goodwill	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
SPIC Pacific Hydro Pty Ltd	4,686,685,499.90	126,659,395.68		4,813,344,895.58
Sichuan Xingding Electric Power Co., Ltd.	1,383,351,755.87			1,383,351,755.87
Zuma Energia SA de CV		3,230,603,230.42		3,230,603,230.42
Goodwill arising from acquisition of China Power New Energy Development Company Limited by China Power International Development Limited	846,224,399.15			846,224,399.15
Goodwill arising from acquisition of Dongguan China Power New Energy Heat Power Company Limited	547,956,000.00			547,956,000.00
Equity in Bridge Trust	534,428,734.67			534,428,734.67
Merger and acquisition of SPIC Shanxi Aluminum Co., Ltd., as well as added value from appraisal of fixed assets and intangible assets	442,838,162.53			442,838,162.53
Liaoning Dongfang Power Generation Co., Ltd.	423,907,689.37			423,907,689.37
Taralga	350,091,829.96	9,461,360.17		359,553,190.13
Acquisition of 100% equity of Huidong County Xingguang Electric Power Co., Ltd.	322,790,327.50			322,790,327.50
Acquisition of 61.17% equity of Mabian Xianjia Puhe Electric Power Co., Ltd.	304,100,959.47			304,100,959.47

Name of the investee or matters forming goodwill	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
Goodwill arising from acquisition of China Power International New Energy Holding Company Limited	279,820,000.00			279,820,000.00
Merger and acquisition of Dianneng Group	234,887,913.72			234,887,913.72
Combination of Qingtongxia Aluminum Power Co., Ltd. by Qingtongxia Aluminum Group	234,105,355.60			234,105,355.60
Goodwill generated from equity premium arising from purchase of Dezheng by Hongjun	185,828,911.21			185,828,911.21
Goodwill of Guazhou, Gansu	170,223,918.06			170,223,918.06
Goodwill arising from acquisition of Shanghai China Power New Energy Property Development Company Limited	160,620,535.55			160,620,535.55
Goodwill of Li County Huacheng Company	140,422,630.13			140,422,630.13
Shanghai Electric Power Co., Ltd.	136,540,848.05			136,540,848.05
Goodwill of Sichuan Jiuyuan	83,576,432.48			83,576,432.48
Jilin Electric Power Co., Ltd.	81,805,638.28			81,805,638.28
Goodwill arising from acquisition of Fujian Shouning Niutoushan Hydropower Co., Ltd. by Fujian Investment & Development Group	78,462,389.32			78,462,389.32

Name of the investee or matters forming goodwill	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
Goodwill arising from acquisition of Gansu China Power Jiuquan Wind Power Co., Ltd.	70,367,000.00			70,367,000.00
Goodwill of Jiangling GCL	59,994,445.72			59,994,445.72
Chongqing Yuanda Environmental Protection	57,364,765.67			57,364,765.67
Goodwill of Ruzhou GCL	51,276,540.38			51,276,540.38
Goodwill arising from acquisition of German Wind Power	44,915,760.28			44,915,760.28
Goodwill arising from acquisition of Chongqing Meixi River Basin Hydropower Development Co., Ltd. by Fujian Investment & Development Group	41,168,583.62			41,168,583.62
SPIC Jiangxi Electric Power Co., Ltd.	38,650,878.96			38,650,878.96
SPIC Guizhou Jinyuan Group Co., Ltd.	32,361,138.02			32,361,138.02
Chongqing Yuneng Mining Industry (Group) Co., Ltd.	29,604,296.68			29,604,296.68
PHB	26,259,325.80		7,284,854.97	18,974,470.83
Goodwill arising from acquisition of Vietnam Pingshun Wind Power Company by China Power International Development Limited	24,218,160.00			24,218,160.00
Goodwill arising from acquisition of Kunming China Power Environmental Protection Power Generation Co., Ltd.	24,032,900.29			24,032,900.29

Name of the investee or matters forming goodwill	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
Goodwill arising from purchase of China Kangfu International Leasing Co., Ltd.	22,308,640.48		22,308,640.48	
SPIC Jiangxi Electric Power Co., Ltd. Qianshan Company	21,451,626.82			21,451,626.82
Goodwill arising from acquisition of China Power Hongze Thermal Power Co., Ltd.	18,480,392.61			18,480,392.61
Equity acquisition of Beijing Huatsing Gas Turbine & IGCC Technology Co., Ltd.	18,302,232.51			18,302,232.51
Goodwill arising from merger and acquisition of Yantai Runfeng	18,016,300.00			18,016,300.00
SPIC Yuanda Environmental Protection Engineering Co., Ltd.	16,920,377.89			16,920,377.89
China Power (Shangqiu) Thermal Power Co., Ltd.	14,629,496.51			14,629,496.51
Goodwill arising from acquisition of China Power Hongze Biomass Thermal Power Co., Ltd.	13,310,607.39			13,310,607.39
Goodwill of CNFC	12,720,022.06			12,720,022.06
Purchase of equity in SPIC Xianrong Futures Co., Ltd.	11,728,089.77			11,728,089.77
SPIC Jiangxi Electric Power Co., Ltd. Qianshan Company	11,556,900.08			11,556,900.08

Name of the investee or matters forming goodwill	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
Acquisition of 60% equity of Sichuan Zhongxing Electric Power Development Co., Ltd.	9,656,172.09			9,656,172.09
Transfer of four wind power plants by Baiyinhua Coal Power Co., Ltd. to Jilin Electric Power Co., Ltd.	9,568,443.05			9,568,443.05
Acquisition of SPIC Xianrong Futures Co., Ltd. by SPIC China Power Complete Equipment Co., Ltd.	9,259,018.24			9,259,018.24
Goodwill arising from acquisition of Liangzhu Yixing	9,195,095.23			9,195,095.23
Northwest Zirconium Tube Co., Ltd.	8,300,602.30			8,300,602.30
Acquisition of Shandong Electric Power Engineering Consulting Institute Corp., Ltd. by State Nuclear Electric Power Planning Design & Research Institute Co., Ltd.	8,155,164.35			8,155,164.35
Acquisition of Conch Clean New Energy by Anhui Company	5,521,635.18			5,521,635.18
Acquisition of Inner Mongolia Hongjing		5,215,837.97		5,215,837.97
Acquisition of Erlianhaote Changfeng Xiehe Wind Energy Development Co., Ltd. by Baiyinhua at a premium	4,165,271.57			4,165,271.57

Name of the investee or matters forming goodwill	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
Acquisition of Tongliao Taihe Wind Power Co., Ltd. by Baiyinhua at a premium	3,817,739.09			3,817,739.09
Acquisition of Montenegro Mozula Co., Ltd. at a premium	3,761,772.87	100,836.98		3,862,609.85
Acquisition of Xinhua Group by Xinjiang Company	3,722,469.33		3,722,469.33	
Acquisition of 100% equity of Sichuan Ebian Jianeng Hydropower Development Co., Ltd.	3,554,343.29			3,554,343.29
Goodwill of Wuhua Hotel	3,340,473.34			3,340,473.34
Goodwill arising from acquisition of Zhangping Huakou Hydropower Co., Ltd. by Fujian Investment & Development Group	3,025,197.95			3,025,197.95
Goodwill arising from acquisition of Yingjiang Hongfu Industrial Co., Ltd. by Fujian Investment & Development Group	2,343,811.73		2,343,811.73	
Chongqing Baihe Electric Power Co., Ltd.	2,259,768.02		2,259,768.02	
Goodwill arising from acquisition of Shouning Niutoushan Grade II Hydropower Co., Ltd. by Niutoushan Company	2,203,600.00			2,203,600.00

Name of the investee or matters forming goodwill	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
SPIC Jiangxi Electric Power Co., Ltd. Qianshan Company	1,630,466.07			1,630,466.07
Absorption and combination of Shandong Tiandi Communication Design Consulting Co., Ltd.	1,149,204.52			1,149,204.52
Transfer of Tianchang Xiehe by Baiyinhua Coal Power to Shanghai Electric Power	784,640.00			784,640.00
Increase in goodwill from acquisition of Turkish EMBA	522,526.60			522,526.60
Merger of Chongqing China Power Self-Energy Technology	518,665.51			518,665.51
Acquisition of 100% equity of Fukushima Xixiang Solar Power via EIKI SHOJI Co., Ltd.	511,680.18		511,680.18	
Merger and acquisition of Wenzhou Hongtai by Zhejiang New Energy	395,312.50			395,312.50
SPIC Yuanda Water Service Co., Ltd.	169,785.97			169,785.97
Acquisition of Zhenlai Huaxing Company	143,540.00			143,540.00
Liushuquan Photovoltaic Project	20,014.79			20,014.79
Total	12,406,004,826.13	3,372,040,661.22	38,431,224.71	15,739,614,262.64

8.30.2 Provision for impairment of goodwill

Name of the investee or matters forming goodwill	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
SPIC Pacific Hydro Pty Ltd	682,278,098.40	963,565,684.80		1,645,843,783.20
Sichuan Xingding Electric Power Co., Ltd.	199,483,248.64			199,483,248.64
Liaoning Dongfang Power Generation Co., Ltd.	423,907,689.37			423,907,689.37
Merger and acquisition of Dianneng Group		234,887,913.72		234,887,913.72
Combination of Qingtongxia Aluminum Power Co., Ltd. by Qingtongxia Aluminum Group	234,105,355.60			234,105,355.60
Goodwill of Guazhou, Gansu	55,881,279.68	27,376,471.70		83,257,751.38
Goodwill of Li County Huacheng Company	140,422,630.13			140,422,630.13
Shanghai Electric Power Co., Ltd.		136,540,848.05		136,540,848.05
Goodwill of Sichuan Jiuyuan		83,576,432.48		83,576,432.48
Goodwill arising from acquisition of Chongqing Meixi River Basin Hydropower Development Co., Ltd. by Fujian Investment & Development Group	15,500,000.00			15,500,000.00
SPIC Guizhou Jinyuan Group Co., Ltd.		32,361,138.02		32,361,138.02
Chongqing Yuneng Mining Industry (Group) Co., Ltd.	29,604,296.68			29,604,296.68

Name of the investee or matters forming goodwill	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
Goodwill arising from acquisition of Kunming China Power Environmental Protection Power Generation Co., Ltd.	24,032,900.29			24,032,900.29
Goodwill arising from acquisition of China Power Hongze Thermal Power Co., Ltd.	18,480,392.61			18,480,392.61
Goodwill arising from acquisition of China Power Hongze Biomass Thermal Power Co., Ltd.	13,310,607.39			13,310,607.39
Acquisition of 60% equity of Sichuan Zhongxing Electric Power Development Co., Ltd.	9,656,172.09			9,656,172.09
Transfer of four wind power plants by Baiyinhua Coal Power Co., Ltd. to Jilin Electric Power Co., Ltd.		9,568,443.05		9,568,443.05
Transfer of Tianchang Xiehe by Baiyinhua Coal Power to Shanghai Electric Power		784,640.00		784,640.00
Total	1,846,662,670.88	1,488,661,571.82		3,335,324,242.70

Remark 1: The Australia Ord Hydropower Station of the Company's subsidiary, State Power Investment Overseas Co., Ltd. lost a contract due to the closure of local mines, resulting in idle capacity reaching 50%. Upon the deliberation and approval by the relevant authorized management meeting, in 2020, the value of goodwill-related assets decreased by RMB 503,134,900; according to the results of the long-term electricity price forecast report issued by the Australian energy market research company Aurora, the future electricity price would be weak, and the company's management estimates

that the present value of the future cash flow of the asset group would drop by RMB 393,815,200, which would eventually lead to the impairment of goodwill amounting to RMB 896,950,100 in 2020; representing an increase of RMB 66,615,600 due to fluctuations in exchange rate;

Remark 2: According to the report (ZQHPBZ [2021] No. 3237) issued by China Enterprise Appraisals Consultation Co., Ltd., upon the assessment of the goodwill-related asset group of Yunnan Energy (Group) Holding Co., Ltd., the recoverable amount is RMB 4,351,182,000, and the book value is RMB 4,760,566,600, the assessed impairment is RMB 409,384,600, the amount of impairment loss first offsetting the goodwill formed by the merger of Yunnan Energy Group by SPIC Yunnan International Power Investment Co., Ltd. is RMB 155,423,500.

According to the report (ZQHPBZ [2021] No. 3236) issued by China Enterprise Appraisals Consultation Co., Ltd., upon the assessment of the goodwill-related asset group of Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd., the recoverable amount is RMB 3,409,126,400 and the book value is RMB 3,644,131,200, the assessed impairment is RMB 235,004,800, the amount of impairment loss first offsetting the goodwill formed by the merger of Dianneng Luquan by SPIC Yunnan International Power Investment Co., Ltd. is RMB 79,464,400.

Remark 3: According to the Report (ZTHPBZ [2021] No. 060162) issued by China Alliance Appraisal Co., Ltd., upon the assessment, recoverable amount of the goodwill-related asset group arising from the merger and acquisition of Gansu Guazhou Concord Wind Power Co., Ltd. by the Company's subsidiary Jilin Electric Power Co., Ltd. is RMB 973,400,000, the book value is RMB 1,029,788,200, and the assessed impairment is RMB 56.3882 million. The amount of impairment loss first offsetting the goodwill formed by the merger and acquisition of Gansu Guazhou is RMB 27,376,500.

Remark 4: According to the Asset Appraisal Report issued by Yinxin Assets Appraisal Co., Ltd., upon the assessment, the recoverable amount of the goodwill-related asset group of Shanghai Electric Power Co., Ltd. is RMB 109,847,157,500, the book value is RMB 110,240,798,500, and the assessed impairment is RMB 393,641,000. The amount of impairment loss first offsetting the goodwill formed by the merger and acquisition of Shanghai Electric Power is RMB 136,540,800;

Remark 5: According to the asset appraisal report issued by VICPV (Beijing) International Assets Appraisal Co., Ltd., upon the assessment, the recoverable amount of the goodwill and related asset group arising from the merger and acquisition of Sichuan Jiuyuan Power Development Co., Ltd. by the Company's subsidiary Wuling Power Co., Ltd. is RMB 532,467,000, the book value is RMB 616,046,000, and the assessed impairment is RMB 83,579,000. The amount of impairment loss first offsetting the goodwill formed by the merger and acquisition of Sichuan Jiuyuan is RMB 83,576,400.

Remark 6: According to the Asset Appraisal Report issued by Yinxin Assets Appraisal Co., Ltd., upon the assessment, the recoverable amount of the goodwill-related asset group of Guizhou Jinyuan Group Co., Ltd. is RMB 42,491,300,000, the book value is RMB 44,154,185,900, and the assessed impairment is RMB 1,662,885,900. The amount of impairment loss first offsetting the goodwill formed by the merger and acquisition of Guizhou Jinyuan Group is RMB 32,361,100;

Remark 7: According to the Asset Appraisal Report issued by Yinxin Assets Appraisal Co., Ltd., upon the assessment, the recoverable amount of the goodwill-related asset groups of the two wind power plants is RMB 455.3 million, the book value is RMB

502.2099 million, the assessed impairment is RMB 46.9099 million, and the amount of impairment loss first offsetting the acquisition and holding of 51.00% equity of Jilin Licheng Xiehe Wind Power Generation Co., Ltd. by a subsidiary of the Company, has formed a goodwill of RMB 5.5554 million on the consolidated statement level of State Power Investment Corporation Limited; the holding of 51.00% equity of Jilin Taihe Wind Power Generation Co., Ltd. has formed a goodwill of RMB 4.0131 million at the level of the consolidated statement of State Power Investment Corporation Limited;

Remark 8: According to the asset appraisal report issued by Yinxin Appraisal Co., Ltd., upon the assessment, the recoverable amount of the goodwill related asset group of Tianchang Xiehe Wind Power Co., Ltd. is RMB 226 million, the book value is RMB 236,315,100, and the estimated impairment is RMB 10.3151 million. The amount of impairment loss is first offset by the goodwill of RMB 784,600 left at the group consolidation level when Mengdong Xiehe New Energy Co., Ltd., a subsidiary of the Company, transferred Tianchang Xiehe to Shanghai Electric Power.

8.31 Long-term deferred expenses

Item	Balance as at January 1, 2020	Increase in 2020	Amortization in 2020	Other decreases	Balance as at December 31, 2020	Reasons for other decreases
Land rental expenses	1,004,517,232.34	322,062,676.18	100,658,617.08	11,634,230.18	1,214,287,061.26	Disposal of subsidiaries
Compensation for land expropriation	564,984,557.98	23,606,814.67	41,876,504.93		546,714,867.72	
Land transfer payments	306,857,597.21	414,614.28	14,238,674.06		293,033,537.43	
Road use rights	270,995,014.08		14,262,895.56		256,732,118.52	
Entry road	112,380,827.63	61,872,474.69	7,874,428.95		166,378,873.37	
Handling charges for finance lease	86,453,981.04	95,370,868.13	47,639,965.93		134,184,883.24	
Housing renovation expenses	118,110,422.56	60,210,585.32	37,354,261.47	21,324,600.41	119,642,146.00	Disposal of subsidiaries and transfer-in of fixed assets, etc.
Grassland vegetation restoration fee		114,096,575.00	4,191,519.88		109,905,055.12	
Production staff training and early entry fees	135,961,127.79	18,596,776.72	83,764,380.74	6,096,605.65	64,696,918.12	Transferred to construction in progress
Others	1,677,591,545.19	715,343,175.46	402,687,802.72	46,831,636.35	1,943,415,281.58	Disposal of subsidiaries, etc.
Total	4,277,852,305.82	1,411,574,560.45	754,549,051.32	85,887,072.59	4,848,990,742.36	

8.32 Deferred income tax assets and deferred income tax liabilities

8.32.1 Deferred tax assets and deferred tax liabilities not presented by net amount after offset

Item	Balance as at December 31, 2020		Balance as at January 1, 2020	
	Deferred income tax assets/liabilities	Deductible/taxable temporary differences	Deferred income tax assets/liabilities	Deductible/taxable temporary differences
I. Deferred income tax assets	3,809,218,315.77	17,257,138,216.87	3,938,817,969.78	17,693,846,546.68
Financial assets measured at fair value through the current profit or loss	113,674,099.63	454,696,398.52	379,357.22	1,517,428.88

Item	Balance as at December 31, 2020		Balance as at January 1, 2020	
	Deferred income tax assets/liabilities	Deductible/taxable temporary differences	Deferred income tax assets/liabilities	Deductible/taxable temporary differences
Accounts receivable	150,955,765.78	752,919,836.53	131,556,618.80	656,162,998.54
Other receivables	114,064,072.98	598,775,264.81	57,529,907.48	302,001,188.33
Other receivables	2,950,154.20	12,068,420.80	2,793,477.70	11,427,492.29
Inventories	17,345,817.36	102,807,433.42	34,937,349.76	207,071,202.51
Available-for-sale financial assets	63,924,003.40	247,391,736.17	66,729,954.26	258,251,022.48
Held-to-maturity investments	205,839,346.88	660,067,098.18	174,991,506.20	561,147,018.07
Long-term receivables	262,543,136.16	1,050,172,544.63	216,570,623.64	866,282,494.55
Investment properties	23,350,467.64	145,137,101.41	31,039,518.19	192,929,142.52
Fixed assets	1,436,067,190.98	6,933,890,605.90	1,402,192,757.62	6,770,331,674.44
Construction in progress	22,970,400.30	121,906,751.32	41,599,107.67	220,771,602.05
Intangible assets	194,682,480.67	989,032,716.73	247,167,795.44	1,255,670,440.25
Research and development expenses	1,336,497.66	8,909,984.37	1,336,497.66	8,909,984.37
Financial liabilities measured at fair value through the current profit or loss			6,029,250.67	24,117,002.68
Employee compensation payable	54,772,666.46	211,704,656.55	19,043,876.61	73,607,469.16
Estimated liabilities	26,200,675.24	99,909,934.64	43,524,048.88	165,968,427.88
Deferred income	229,311,669.74	925,688,169.64	252,636,792.41	1,019,847,311.80
Advances to suppliers	16,192,178.47	100,489,661.07	22,808,068.14	141,548,281.55
Financial assets held for trading	-3,367,097.91	-13,468,391.64	97,564,018.93	390,256,075.72
Contract assets	2,679,601.97	17,921,213.56	327,368.17	2,189,442.67
Creditor's right investment	54,918,994.20	219,675,976.80	28,631,432.61	114,525,730.44
Right-of-use assets	101,046,219.16	354,721,295.82	73,752,764.02	258,908,014.98
Others	576,780,993.17	2,527,541,695.67	489,975,600.25	2,140,037,563.45
Deductible losses	140,978,981.63	735,178,111.97	495,700,277.45	2,050,367,537.06
II. Deferred income tax liabilities	1,527,521,307.45	5,870,831,308.23	1,505,414,322.29	6,021,657,289.16
Financial assets measured at fair value through the current profit or loss			1,101,601.30	4,406,405.20
Accounts receivable			-55,529.43	-222,117.72
Inventories	4,894.11	32,627.43	4,897.72	19,590.88
Available-for-sale financial assets	440,484,009.77	1,761,936,038.88	520,281,611.01	2,081,126,444.04
Held-to-maturity investments			36,741,579.68	146,966,318.72
Long-term equity investments	7,875,528.70	31,502,114.80	6,180,278.70	24,721,114.80
Investment properties	160,739,168.57	803,343,471.26	316,819,238.20	1,267,276,952.80

Item	Balance as at December 31, 2020		Balance as at January 1, 2020	
	Deferred income tax assets/liabilities	Deductible/taxable temporary differences	Deferred income tax assets/liabilities	Deductible/taxable temporary differences
Fixed assets	1,236,304,585.33	4,653,847,079.21	1,313,337,632.54	5,253,350,530.16
Construction in progress	3,563,554.01	13,248,747.36	26,647,013.59	106,588,054.36
Intangible assets	228,493,642.68	669,948,214.63	241,046,074.90	964,184,299.60
Research and development expenses	47,429,907.28	181,740,744.48	54,164,163.63	216,656,654.52
Financial liabilities measured at fair value through the current profit or loss			4,810,590.21	19,242,360.84
Deferred income	18,750.00	75,000.00	161,570.40	646,281.60
Advances to suppliers			4,401,173.94	17,604,695.76
Financial assets held for trading			4,541,457.19	18,165,828.76
Right-of-use assets	93,328,346.22	328,478,427.12	71,281,188.19	285,124,752.76
Others	-690,721,079.22	-2,573,321,156.94	-1,096,050,219.48	-4,384,200,877.92

8.32.2 Details of unrecognized deferred tax assets

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Deductible losses	28,979,944,409.20	25,138,223,174.63
Total	28,979,944,409.20	25,138,223,174.63

8.32.3 Deductible losses of unrecognized deferred income tax assets will become due in the following years

Year	Balance as at December 31, 2020	Balance as at January 1, 2020	Remark
2020		2,893,402,345.88	
2021	8,480,943,917.98	3,297,072,313.73	
2022	4,388,256,020.58	5,717,540,225.54	
2023	4,698,020,663.96	6,382,361,956.42	
2024	4,864,918,132.03	6,847,846,333.06	
2025	6,547,805,674.65		
Total	28,979,944,409.20	25,138,223,174.63	

8.33 Other non-current assets

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Entrusted loans	80,279,050.00	1,936,577,777.52
Reclassification of value-added tax payable	18,340,507,856.34	14,425,632,612.03
Advances to suppliers for projects	1,694,030,517.44	374,469,172.62
Advances to suppliers for equipment	5,635,462,657.07	2,932,184,160.47
Long-term external borrowings	2,990,000,000.00	78,154,368.60
Nuclear fuel	2,554,482,841.37	2,135,561,102.86
Derivatives financial assets	981,184,550.98	651,349,841.18
Land use rights of Luojing Power Plant	814,825,025.62	814,825,025.62
Yijiang Project	765,590,830.86	566,433,286.45

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Prepaid transfer fees of Yang Plant Land and Municipal Support Fees, etc.	511,242,863.17	511,242,863.17
Deposit for M&A Project	360,288,800.00	
Right to earnings from poverty alleviation projects	356,135,527.62	309,107,862.59
Retired generator units	193,727,855.29	235,651,791.82
Advances to suppliers for lands from Japan	151,766,400.00	51,268,800.00
Others	2,608,346,959.96	6,139,987,423.78
Total	38,037,871,735.72	31,162,446,088.71

8.34 Short-term borrowings

8.34.1 Classification of short-term borrowings

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Pledged borrowings	3,867,250,648.12	127,838,227,708.22
Mortgaged borrowings	556,000,000.00	173,000,000.00
Guaranteed borrowings	17,152,205,488.81	16,597,201,601.66
Credit borrowings	125,028,957,864.01	3,728,033,409.23
Total	146,604,414,000.94	148,336,462,719.11

8.35 Financial liabilities held for trading

Item	Fair value as at December 31, 2020	Fair value as at January 1, 2020
Others	188,671,425.07	
Total	188,671,425.07	

8.36 Financial liabilities measured at fair value through the current profit or loss

Item	Fair value as at December 31, 2020	Fair value as at January 1, 2020
Financial liabilities designated to be measured at fair value through the current profit or loss	453,119,000.00	
Total	453,119,000.00	

8.37 Derivative financial liabilities

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Forward foreign exchange settlement and sale business	67,845.60	196,920.60
Cash flow hedging (CCS + IRS)	77,358,085.59	50,515,898.99
Cash flow hedging reserve	414,477.00	11,635,410.00
HSBC cross currency swap		22,919,213.33
Fair Value Hedge		4,883,855.38
Cash Flow Hedge	76,666,927.65	163,395,795.87
5 Interest rate swap (current)	18,100,200.47	11,254,885.44
3 Energy swap (current)	64,765,478.02	1,342,006.77
Total	237,373,014.33	266,143,986.38

8.38 Notes payable

Category	Balance as at December 31, 2020	Balance as at January 1, 2020
Bank acceptance bill	2,592,175,559.16	2,494,384,724.08
Commercial acceptance bill	9,473,787,460.58	11,088,428,092.65
Total	12,065,963,019.74	13,582,812,816.73

8.39 Accounts payable

Aging	Balance as at December 31, 2020	Balance as at January 1, 2020
Within 1 year (including 1 year)	43,708,858,685.13	36,944,117,911.21
1 - 2 years (including 2 years)	8,062,109,440.37	9,612,614,521.81
2 - 3 years (including 3 years)	3,514,930,374.49	4,141,775,062.26
Over 3 years	4,737,533,425.49	3,693,904,577.32
Total	60,023,431,925.48	54,392,412,072.60

Significant accounts payable with aging over one year:

Name of creditor	Balance as at December 31, 2020	Reason for nonpayment
The Fifth Institute of Geological and Mineral Exploration of Qinghai Province	510,689,813.14	Exploration right transfer contract of Yixia Rihamu did not meet the payment terms
XEMC Wind Power Company	216,709,319.59	No warranty is issued and payment conditions are not met
Ningxia Luyu Construction Engineering Co., Ltd.	194,204,871.49	Payment terms have not been met.
PowerChina Jiangxi Electric Power Construction Co., Ltd.	122,133,686.21	Payment terms have not been met.
Sinohydro Bureau 4 Co., Ltd.	113,011,459.51	Payment terms have not been met.
Tianjin Xiehe Huaxing Wind Power Equipment Co., Ltd.	105,314,599.64	Payment terms have not been met.
Payments for air blower of XEMC Windpower Co., Ltd.	104,812,000.00	Payment terms have not been met.
Xinjiang Goldwind Science & Technology Co., Ltd.	102,836,481.59	Payment terms have not been met.
Estimated project payment to be transferred to fixed assets of Jiulongshan Project	91,435,499.13	Payment terms have not been met.
Ningbo Jiangong Jianle Engineering Co., Ltd.	89,882,475.68	Payment terms have not been met.
Shanghai Power Investment Pipeline Engineering Co., Ltd.	89,456,754.20	Payment terms have not been met.
China Energy Engineering Group Anhui Electric Power Design Institute Co., Ltd.	75,424,031.06	Payment terms have not been met.
Mingyang Smart Energy Group Co., Ltd.	62,075,192.80	Payment terms have not been met.
Envision Energy International Limited	61,835,053.30	Payment terms have not been met.

Name of creditor	Balance as at December 31, 2020	Reason for nonpayment
Jiangsu Electric Power Construction No. 1 Engineering Company of CEEC	60,949,866.30	Tail-in work and quality guarantee deposit settlement
Babcock & Wilcox Beijing Co., Ltd.	55,447,000.00	Payment terms have not been met.
Envision Energy (Jiangsu) Co., Ltd.	54,750,000.00	Payment terms have not been met.
Tianjin Huanou International Silicon Material Co., Ltd.	53,224,152.48	Payment terms have not been met.
Suzhou Talesun Solar Technologies Co., Ltd.	50,290,512.19	Payment terms have not been met.
Nanjing Haide Electric Power Technology Co., Ltd.	44,756,071.45	Payment terms have not been met.
Shanghai Electric Wind Power Group Co. Co., Ltd.	40,808,401.49	Payment terms have not been met.
Shanxi Industrial Equipment Installation Group Co., Ltd.	39,307,077.87	Payment terms have not been met.
Zhejiang Feida Environmental Science & Technology Co., Ltd.	36,502,887.54	Payment terms have not been met.
Equipment payment of XEMC Wind Power Company	35,921,137.84	Payment terms have not been met.
Jiangsu Dianyuan Materials Co., Ltd.	33,885,000.00	Payment terms have not been met.
Anhui Electric Power Construction No. 2 Engineering Company of CEEC	32,749,999.00	Payment terms have not been met.
HEAG Windpower Co., Ltd.	32,642,393.88	Payment terms have not been met.
China Construction Wuzhou Engineering Equipment Co., Ltd.	32,258,412.92	Payment terms have not been met.
China Nuclear Industry Fifth Construction Co., Ltd.	32,013,695.98	Payment terms have not been met.
Changjiang Chongqing Waterway Bureau	31,282,024.96	Payment terms have not been met.
(Dalian Power Generation) China Materials Storage and Transportation Corporation	30,585,100.00	Payment terms have not been met.
Guodian United Power Technology Company Ltd.	29,290,850.00	Payment terms have not been met.
Jiangsu Power Design Institute Co., Ltd.	26,835,251.87	Payment terms have not been met.
Shanghai Electric Wind Power Group Co., Ltd. Dongzhi Branch	26,292,355.58	Payment terms have not been met.
Asia World Limited	25,283,253.86	Payment terms have not been met.
Anhui Zhenfa Solar Energy Technology Co., Ltd.	24,941,685.57	Payment terms have not been met.
PowerChina Guiyang Engineering Corporation Limited	24,200,000.00	Payment terms have not been met.
Xiamen Haizhizhou Hydropower Equipment Co., Ltd.	23,840,799.83	Payment terms have not been met.

Name of creditor	Balance as at December 31, 2020	Reason for nonpayment
Solargiga Energy Co., Ltd.	23,455,341.00	Payment terms have not been met.
Reserved equal coal substitution in thermal power phase I	23,020,000.00	Payment terms have not been met.
TBEA Sunoasis Co., Ltd.	22,464,153.85	Payment terms have not been met.
PowerChina Hebei Engineering Corporation Limited	20,840,144.46	Payment terms have not been met.
Anhui Electric Power Construction No.1 Engineering Company of CEEC	20,184,372.48	Payment terms have not been met.
Hami Goldwind Wind Power Equipment Co., Ltd.	20,089,950.00	Payment terms have not been met.
Beijing Trustek Electrical Equipment Co., Ltd.	20,048,618.23	Payment terms have not been met.
Jiaozuo Danhe Power Generation Co., Ltd.	19,299,345.70	Payment terms have not been met.
China 15th Metallurgical Construction Group Co., Ltd.	19,291,176.52	Payment terms have not been met.
China Energy Engineering Group Gansu Engineering Co., Ltd. of Northwest Power Construction	19,149,340.20	Payment terms have not been met.
BOE Technology Group Co., Ltd.	18,755,241.68	The project's final payment
Shanghai Electric Group Co., Ltd.	17,661,842.00	Payment terms have not been met.
Changzhou EGing Photovoltaic Technology Co., Ltd.	16,887,278.92	Payment terms have not been met.
(Fushun Thermal Power) Final Project	16,427,300.00	Payment terms have not been met.
Siemens Gamesa Renewable Energy Technology (China) Co., Ltd.	16,410,887.70	Payment terms have not been met.
Changjiang Chongqing Waterway Engineering Bureau	16,208,192.79	Payment terms have not been met.
China Gezhouba Group Co., Ltd.	16,206,541.18	Payment terms have not been met.
PowerChina Jiangsu No. 1 Engineering Co., Ltd.	15,620,381.58	Payment terms have not been met.
ADLINK Technology Inc.	15,196,306.81	Payment terms have not been met.
Xinjiang Goldwind Science & Technology Co., Ltd. (Xide Company)	14,916,830.00	Payment terms have not been met.
Northwest Power Construction No.1 Engineering Co., Ltd.	14,909,875.21	Payment terms have not been met.
Changjiang Institute of Survey, Planning, Design and Research Co., Ltd.	14,642,807.50	Payment terms have not been met.
China Energy Engineering Group Zhejiang Thermal Power Construction Co., Ltd.	14,340,209.00	Retention fund
Shanghai HEAG Financial Leasing Co., Ltd.	14,327,300.00	Payment terms have not been met.

Name of creditor	Balance as at December 31, 2020	Reason for nonpayment
Hami Smart Exhaust Gas Supply Co., Ltd.	13,952,261.86	Payment terms have not been met.
Mirion Technologies (MGPI) SA	13,850,098.63	Payment terms have not been met.
CRRC Lanzhou Co., Ltd.	13,580,261.00	Payment terms have not been met.
Xinjiang Haiwei New Energy Power Engineering Co., Ltd.	13,575,444.70	Payment terms have not been met.
Xuchang Xuji Wind Power Technology Co., Ltd.	13,251,864.66	Payment terms have not been met.
Anhui Zhenfa New Energy Technology Co., Ltd.	12,809,666.84	Payment terms have not been met.
Xinxiang Huaxin Power Group Co., Ltd.	12,381,121.40	Payment terms have not been met.
Zhengzhou Zhongyuan Railway Engineering Co., Ltd.	11,473,794.98	Payment terms have not been met.
Sunten Electrical Equipment Co., Ltd.	11,462,432.82	Payment terms have not been met.
Hydrochina Northwest Engineering Corporation Limited	11,220,000.00	Payment terms have not been met.
Sinovel Wind Group Co., Ltd.	10,999,100.00	Payment terms have not been met.
ChinaCoal Pingshuo Coal Company Limited	10,885,134.17	Historical reasons
Sany Heavy Energy Co., Ltd.	10,750,000.00	Payment terms have not been met.
China Energy Engineering Group Tianjin Electric Power Construction Co., Ltd.	10,502,495.57	Payment terms have not been met.
PowerChina Henan Electric Power Survey and Design Institute Co., Ltd.	10,446,490.26	Payment terms have not been met.
Shanghai Electric Wind Power Equipment Co., Ltd.	10,150,000.00	Payment terms have not been met.
Qinghai Provincial Immigration and Resettlement Bureau	10,000,000.00	Payment terms have not been met.
Total	3,449,522,771.65	

8.40 Advances from customers

Aging	Balance as at December 31, 2020	Balance as at January 1, 2020
Within 1 year (including 1 year)	8,239,948,563.15	8,861,344,063.94
Over 1 year	3,038,787,494.59	3,701,793,347.18
Total	11,278,736,057.74	12,563,137,411.12

Significant advances from customers with aging of more than one year

Name of creditor	Balance as at December 31, 2020	Reason for no carry-forward
CGN Lufeng Nuclear Power Co., Ltd.	1,644,650,863.28	Settlement period has not been matured
Sanmen Nuclear Power Co., Ltd.	174,448,201.37	Settlement period has not been matured

Name of creditor	Balance as at December 31, 2020	Reason for no carry-forward
Huaneng Shandong Shidaobay Nuclear Power Co., Ltd.	40,000,000.00	Settlement period has not been matured
Hong Kong and Macau Smart City (Hengqin) Project Development Co., Ltd.	22,118,486.21	Settlement period has not been matured
Shanghai Netsun Information Technology Co., Ltd.	13,401,570.00	Settlement period has not been matured
Zhuhai Hengqin Yinli International Bioscience City Project Development Co., Ltd.	12,637,614.68	Actually unamortized capacity fee
Total	1,907,256,735.54	

8.41 Contract liabilities

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Advance payment for services not reached	1,665,248,234.30	1,151,787,732.62
Total	1,665,248,234.30	1,151,787,732.62

8.42 Financial assets sold under repurchase agreements

Item	Book balance as at December 31, 2020	Book balance as at January 1, 2020
Reverse repurchase of treasury bonds	18,773,914.16	
Total	18,773,914.16	

8.43 Absorption of deposits and interbank deposit

Item	Balance as at December 31, 2020	Balance as at December 31, 2019
Demand deposits	273,504,919.77	25,048,256.16
Company	273,504,919.77	25,048,256.16
Total	273,504,919.77	25,048,256.16

8.44 Employee compensation payable

8.44.1 Presentation of employee compensation payable

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
I. Short-term compensation	2,689,084,359.49	30,086,387,161.24	29,931,181,691.63	2,844,289,829.10
II. Post-employment benefits - defined contribution plans	134,579,832.19	2,429,108,546.26	2,485,721,198.92	77,967,179.53
III. Dismissal benefits	24,469,293.27	24,770,999.30	27,853,117.06	21,387,175.51
IV. Others	241,961.59	158,011,967.32	152,384,944.44	5,868,984.47
Total	2,848,375,446.54	32,698,278,674.12	32,597,140,952.05	2,949,513,168.61

8.44.2 Presentation of short-term compensation

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
I. Salaries, bonuses, allowances and subsidies	1,739,087,407.68	22,707,918,011.20	22,747,847,420.76	1,699,157,998.12
II. Employee welfare expenses	1,362,397.89	1,819,365,048.28	1,819,365,048.38	1,362,397.79
III. Social insurance premiums	159,528,336.60	2,012,924,555.05	1,999,036,866.51	173,416,025.14
Including: medical insurance premiums	155,499,065.92	1,899,283,613.01	1,884,310,502.52	170,472,176.41
Work-related injury insurance premiums	2,072,503.46	61,937,427.51	62,843,764.97	1,166,166.00
Maternity insurance premium	1,222,697.52	44,275,815.67	44,127,706.65	1,370,806.54
Others	734,069.70	7,427,698.86	7,754,892.37	406,876.19
IV. Housing provident funds	4,145,106.14	1,824,951,368.02	1,822,209,652.37	6,886,821.79
V. Labor union expenditures and employee education funds	754,693,232.89	857,723,527.43	683,724,639.60	928,692,120.72
VI. Short-term compensated absences	12,759,199.51	4,634,696.20	309,747.78	17,084,147.93
VII. Other short-term compensation	17,508,678.78	858,869,955.06	858,688,316.23	17,690,317.61
Total	2,689,084,359.49	30,086,387,161.24	29,931,181,691.63	2,844,289,829.10

8.44.3 Presentation of defined contribution plans

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
I. Basic endowment insurance premium	40,628,376.24	1,224,403,077.87	1,247,271,888.99	17,759,565.12
II. Unemployment insurance premium	6,533,508.16	46,804,891.35	47,467,390.88	5,871,008.63
III. Enterprise annuity payments	87,342,374.66	1,157,523,626.47	1,190,529,395.35	54,336,605.78
IV. Others	75,573.13	376,950.57	452,523.70	
Total	134,579,832.19	2,429,108,546.26	2,485,721,198.92	77,967,179.53

8.45 Taxes and surcharges payable

Item	Balance as at January 1, 2020	Amount payable in 2020	Amount paid in 2020	Balance as at December 31, 2020
VAT	1,943,101,536.51	10,465,091,685.20	10,529,511,116.84	1,878,682,104.87
Consumption tax	1,933,326.60	11,986,765.31	7,671,368.16	6,248,723.75
Resource tax	123,236,469.93	1,464,116,268.66	1,452,972,573.57	134,380,165.02
Urban construction tax	60,352,092.50	572,236,622.22	556,997,018.17	75,591,696.55
Enterprise income tax	2,110,817,187.17	7,062,940,388.66	7,027,018,459.69	2,146,739,116.14
Property tax	86,405,154.25	621,410,028.53	637,223,772.77	70,591,410.01
Vehicle and vessel use tax	-24,964.25	7,020,973.85	7,025,836.30	-29,826.70
Land use tax	62,413,953.23	805,610,427.85	793,155,560.65	74,868,820.43
Tariff		2,108,164.26	2,108,164.26	
Individual income tax	352,050,038.97	1,032,298,163.43	747,190,716.82	637,157,485.58
Stamp duty	92,022,735.88	323,025,627.89	335,084,669.27	79,963,694.50
Deed tax	26,475,512.11	52,683,979.41	67,190,386.05	11,969,105.47
Farmland occupancy tax	1,062,493.73	455,884,289.67	398,716,613.28	58,230,170.12
Land value increment tax	8,966,109.44	18,571,893.00	24,570,255.20	2,967,747.24
Educational surtax (including local educational surtax)	61,258,347.12	513,543,218.58	501,920,508.76	72,881,056.94
Environmental protection tax	56,014,526.83	308,981,064.31	288,930,828.61	76,064,762.53
Water resource tax	48,871,509.63	138,534,199.55	153,571,540.19	33,834,168.99
Other taxes	31,195,121.88	382,332,713.26	329,462,596.29	84,065,238.85
Pollution discharge fees	8,119,991.12	4,610,962.63	4,317,571.36	8,413,382.39
Water resources fees	333,132,466.77	715,843,214.91	500,606,043.48	548,369,638.20
Reservoir maintenance fund	621,768,924.10	426,876,309.85	527,214,330.37	521,430,903.58
Mineral resources compensation	65,329.60	12,313,506.66	12,378,836.26	
River management fee	2,723,340.47	500,000.00	500,000.00	2,723,340.47
Flood control construction fund	2,749,536.22	1,968,346.30	3,284,777.06	1,433,105.46
Prevention and control fees for water	25,766,523.12	81,157,643.47	79,080,484.12	27,843,682.47

Item	Balance as at January 1, 2020	Amount payable in 2020	Amount paid in 2020	Balance as at December 31, 2020
and soil erosion				
Water conservancy construction fund	10,344,919.87	65,278,709.20	66,221,733.51	9,401,895.56
Electricity supervision fee	135,627.81			135,627.81
Other policy-related fees	4,631,471.07	63,696,306.16	61,355,618.68	6,972,158.55
Total	6,075,589,281.68	25,610,621,472.82	25,115,281,379.72	6,570,929,374.78

8.46 Other payables

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Interest payable	3,517,425,776.16	5,244,702,550.10
Dividends payable	1,159,440,203.56	1,260,362,939.62
Other payables	19,808,349,316.08	19,147,175,008.72
Total	24,485,215,295.80	25,652,240,498.44

8.46.1 Interest payable

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Interest on long-term borrowings with interest paid by installments and principal paid on maturity date	1,179,770,674.22	2,273,077,391.24
Interest on corporate bond	1,288,784,721.54	1,968,579,842.10
Interest payable on short-term borrowings	565,864,998.80	767,386,553.68
Other interest	483,005,381.60	235,658,763.08
Total	3,517,425,776.16	5,244,702,550.10

8.46.2 Dividends payable

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Common stock dividends	1,159,440,203.56	1,260,362,939.62
Total	1,159,440,203.56	1,260,362,939.62

8.46.3 Other payables

(1) Presentation of other payables by nature

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Project quality deposit reserved	4,108,223,555.35	4,867,008,177.10
Warranty and security deposits other than reserved project quality	3,684,234,518.01	3,604,973,675.71

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
deposits		
Engineering and equipment payments	2,144,907,041.91	619,619,305.01
Employee social insurance premiums	327,604,970.60	428,696,556.11
Others	9,543,379,230.21	9,626,877,294.79
Total	19,808,349,316.08	19,147,175,008.72

(2) Other significant payables with aging over one year

Creditor	Balance as at December 31, 2020	Reason for nonpayment
Mutual assistance funds from the Department of Industry and Information Technology of Qinghai Province	337,274,400.00	Payment while recovery by the government
Shanghai Power Investment Pipeline Engineering Co., Ltd.	141,166,819.32	The payment did not meet the payment requirements
China Aluminum International Co., Ltd.	129,612,028.04	Project quality deposit reserved
Dongfang Electric Corporation Limited	99,046,581.20	Quality guarantee deposit
Xiaoqipei Hydropower Co., Ltd.	97,466,267.67	No payment conditions temporarily
Shanghai Electric Group Co., Ltd.	137,772,650.20	Quality guarantee deposit
Huadian Heavy Industries Co., Ltd.	87,510,206.10	Settlement period has not been matured
Xinjiang Goldwind Science & Technology Co., Ltd.	77,909,966.95	Payment time not reached
Datang Guizhou Yemazhai Power Generation Co., Ltd.	68,044,562.99	The other party hasn't urged payment
Baoshan Iron & Steel Co., Ltd.	62,050,640.10	Settlement period has not been matured
Myanmar Asia World Limited	52,843,814.90	Not yet completed
Heating operation and maintenance fees for the "three supply and one industry" Guanzhuang Project	35,889,622.78	Amortization and payment of heating operation and maintenance fees for the "three supply and one industry" Guanzhuang Project by year
Mulei County Dongfang Minsheng New Energy Co., Ltd.	32,500,000.00	Collection fund for pooling station

Creditor	Balance as at December 31, 2020	Reason for nonpayment
Jiangsu Electric Power Construction No. 3 Engineering Company of CEEC	30,458,000.00	Not yet due
Shanghai Electric Wind Power Equipment Co., Ltd.	30,395,271.60	Quality guarantee deposit
CSIC Haizhuang Wind Power Co., Ltd.	29,540,000.00	Not yet settled
Shanghai Electric Wind Power Group Co. Co., Ltd.	29,047,710.12	Not yet settled
Provisional capital assessment payable (Zhengwu)	25,245,653.65	Provisional accounts
Jiangsu Zhongtian Technology Co., Ltd.	25,164,365.02	The payment did not meet the payment requirements
Changjiang Institute of Survey, Planning, Design and Research Co., Ltd.	24,645,550.00	Not yet settled
Sinohydro Bureau 4 Co., Ltd.	49,224,992.40	Security deposits
Envision Energy (Jiangsu) Co., Ltd.	20,622,303.72	The warranty period has not expired
Jiuquan Iron and Steel (Group) Co., Ltd.	20,000,000.00	Payment node not reached
Keping County Yue Hydropower Energy Co., Ltd.	19,889,230.76	The asset allocation agreement for the booster station has not been signed
Keping Haixin Photovoltaic Power Co., Ltd.	19,387,322.00	The asset allocation agreement for the booster station has not been signed
Xi'an Longi Clean Energy Co., Ltd.	17,791,932.76	Not settled
Fuzhou Haizhizhou Hydropower Equipment Co., Ltd.	16,883,600.00	Not settled
(Northeast Diankai) Liaoning Electric Power Economic Development Corporation	16,657,808.84	The other party hasn't urged receivable
Qingdao Hanhe Cable Co., Ltd.	16,547,721.95	The payment did not meet the payment requirements
Xinjiang Huarong New Energy Co., Ltd.	16,250,000.00	Collection fund for pooling station
Mulei County Xinke Wind Energy Co., Ltd.	16,250,000.00	Collection fund for pooling station

Creditor	Balance as at December 31, 2020	Reason for nonpayment
Mulei County Dun'an Wind Power Co., Ltd.	16,250,000.00	Collection fund for pooling station
Mulei County Qianxin New Energy Development Co., Ltd.	16,250,000.00	Collection fund for pooling station
CECEP Solar Energy Technology Keping Co., Ltd.	15,721,714.30	The asset allocation agreement for the booster station has not been signed
MHPS Dongfang Boiler Co., Ltd.	15,609,766.39	Quality guarantee deposit
Yunnan Hongsha Trading Co., Ltd.	14,872,966.36	Not settled
(Pingzhuang Thermal Power) Hongshan Power Plant	14,000,000.00	Insufficient funds
Sinohydro Bureau 11 Co., Ltd.	13,475,586.74	Not yet settled
SPIC - Ping'an Securities	13,016,693.89	The payment term has not matured.
Deposited in by Zhenxing Company	13,000,000.00	Payment terms have not been met.
Zhongshan Mingyang Electric Appliance Co., Ltd.	12,873,303.20	The payment did not meet the payment requirements
Baosheng Technology Innovation Co., Ltd.	12,828,157.15	The payment did not meet the payment requirements
Security deposits payable to Ningbo Construction Engineering Group Co., Ltd.	12,200,000.00	Security deposits
Shantytowns Transformation Project (Wusu Sikeshu Coal Co., Ltd.)	12,179,320.95	Not settled
Sinohydro Bureau 14 Co., Ltd.	12,148,424.06	Not yet settled
Guangdong No.2 Hydropower Engineering Co., Ltd.	12,052,142.92	The payment did not meet the payment requirements
Housing and Urban-Rural Planning and Construction Bureau of Weihui	12,000,000.00	Supporting fee paid by the Finance Bureau on behalf of the company, and it would be returned
Qingdao Dongfang New Energy Power Generation Co., Ltd.	12,000,000.00	Business security deposits
Lingchuan County Ruifeng Wind Power Equipment Co., Ltd.	11,851,833.33	The payment term has not matured.

Creditor	Balance as at December 31, 2020	Reason for nonpayment
(Dongteng) Liaoning Electric Power Co., Ltd.	11,690,000.00	Unilateral pending account
Zhengzhou Zhongyuan Railway Engineering Co., Ltd.	11,473,669.02	Quality guarantee deposit
PowerChina Jiangxi Electric Power Construction Co., Ltd.	11,080,349.36	Payment terms have not been met.
Beijing Jiuyan Hexi Technology & Trade Co., Ltd.	11,053,405.67	The payment did not meet the payment requirements
Keping Tianhua New Energy Power Co., Ltd.	10,936,163.38	The asset allocation agreement for the booster station has not been signed
Bid security	10,897,490.77	Project bidding not finished
Sinohydro Bureau 8 Co., Ltd.	10,753,060.38	Not yet settled
Xinjiang Kaiyuan Yida Investment Management Co., Ltd.	10,668,544.50	Security deposits
XEMC Wind Power Company	10,625,000.00	Payment time not reached
Provisional estimated assets of Jinchuan Sawajiao Project (Jinchuan)	10,334,107.77	Provisional accounts
Keping County CNBM Photovoltaic Power Generation Co., Ltd.	10,244,615.38	The asset allocation agreement for the booster station has not been signed
Xinjiang Kaiyuan Yida Investment Management Co., Ltd.	10,228,727.76	Quality guarantee deposit
Total	2,155,404,066.35	

8.47 Liabilities held for sale

Item	Book value as at December 31, 2020	Fair value as at December 31, 2020	Expected disposal expenses	Expected disposal time	Way of sale	Reason for sale	Division
CLP Shentou	2,716,125,757.27	2,716,125,757.27	Equity transfer without disposal fees	Multi-party negotiations on personnel placement			Shanxi Shentou Power Co., Ltd.
Hongdian Property	364,693,966.21	364,693,966.21	Equity transfer without disposal fees	Multi-party negotiations on personnel placement			SPIC Jiangxi Electric Power Co., Ltd.
Total	3,080,819,723.48	3,080,819,723.48					

8.48 Non-current liabilities maturing within one year

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Long-term borrowings maturing within one year	53,172,963,222.92	44,055,738,544.50
Bonds payable maturing within one year	33,739,735,000.00	19,520,365,871.62
Long-term payables maturing within one year	21,763,960,942.19	18,370,551,945.18
Lease liabilities maturing within one year (applicable to new leases standards)	595,278,388.66	614,364,660.53
Total	109,271,937,553.77	82,561,021,021.83

8.49 Other current liabilities

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Short-term bonds payable	48,700,000,000.00	39,041,516,591.00
Taxes payable - reclassification of output tax to be carried forward	349,826,850.81	192,472,613.04
Others	10,104,414,025.38	14,611,234,818.16
Total	59,154,240,876.19	53,845,224,022.20

Changes in short-term bonds payable:

Bond name	Par value	Issue date	Term of bond	Amount issued	Balance as at January 1, 2020	Amount issued in 2020	Interest calculated at par value	Amortization of premiums or discounts	Amount repaid in 2020	Balance as at December 31, 2020
19 SNPTC CP001	4,000,000,000.00	2019-9-26	365 days	4,000,000,000.00	2,000,000,000.00				2,000,000,000.00	
19 SDNPC SCP002	1,500,000,000.00	2019-6-14	270 days	1,500,000,000.00	1,500,000,000.00				1,500,000,000.00	
19 SDNPC SCP001	500,000,000.00	2019-8-8	270 days	500,000,000.00	500,000,000.00				500,000,000.00	
RHZL2017086-19SCP007	500,000,000.00	2019-6-6	365 days	500,000,000.00	500,000,000.00				500,000,000.00	
RHZL2017086-19SCP009	500,000,000.00	2019-7-12	365 days	500,000,000.00	500,000,000.00				500,000,000.00	
RHZL2017086-19SCP011	500,000,000.00	2019-8-23	365 days	500,000,000.00	500,000,000.00				500,000,000.00	
RHZL2017086-19SCP013	1,000,000,000.00	2019-9-20	365 days	1,000,000,000.00	1,000,000,000.00				1,000,000,000.00	
RHZL2019050-19 RHRZ SCP014	1,000,000,000.00	2019-11-13	365 days	1,000,000,000.00	1,000,000,000.00				1,000,000,000.00	
RHZL2019050-19 RHRZ SCP016	500,000,000.00	2019-11-20	365 days	500,000,000.00	500,000,000.00				500,000,000.00	
RHZL2019050-19 RHRZ SCP015	500,000,000.00	2019-11-20	365 days	500,000,000.00	500,000,000.00				500,000,000.00	
RHZL2019050-19 RHRZ SCP017	500,000,000.00	2019-12-13	365 days	500,000,000.00	500,000,000.00				500,000,000.00	
19 SCP021 (RMB 1.8 billion)	1,800,000,000.00	2019-6-17	267 days	1,800,000,000.00	1,800,000,000.00				1,800,000,000.00	
19 SCP023 (RMB 2.5 billion)	2,500,000,000.00	2019-8-14	147 days	2,500,000,000.00	2,500,000,000.00				2,500,000,000.00	
19 SCP024 (RMB 2.5 billion)	2,500,000,000.00	2019-8-21	177 days	2,500,000,000.00	2,177,026,591.00				2,177,026,591.00	
19 SCP026 (RMB 2.5 billion)	2,500,000,000.00	2019-9-9	177 days	2,500,000,000.00	2,500,000,000.00				2,500,000,000.00	
19 SCP032 (RMB 2.2 billion)	2,200,000,000.00	2019-11-12	131 days	2,200,000,000.00	2,200,000,000.00				2,200,000,000.00	
19 MTN issued by the Group to CLP	196,000,000.00	2019-10-21	365 days	277,000,000.00	277,000,000.00				277,000,000.00	
19 China Power International SCP	700,000,000.00	2019-9-18	174 days	700,000,000.00	700,000,000.00				700,000,000.00	
19 China Power International SCP001	500,000,000.00	2019-9-3	270 days	500,000,000.00	500,000,000.00				500,000,000.00	
19 Jilin Investment Fund	87,490,000.00	2019-8-21	159 days	87,490,000.00	87,490,000.00				87,490,000.00	

Bond name	Par value	Issue date	Term of bond	Amount issued	Balance as at January 1, 2020	Amount issued in 2020	Interest calculated at par value	Amortization of premiums or discounts	Amount repaid in 2020	Balance as at December 31, 2020
19 Xinjiang Energy	900,000,000.00	2019-10-17	270 days	900,000,000.00	900,000,000.00				900,000,000.00	
19 SEP SCP008	1,600,000,000.00	2019-6-10	268 days	1,600,000,000.00	1,600,000,000.00				1,600,000,000.00	
19 SEP SCP009	900,000,000.00	2019-7-12	180 days	900,000,000.00	900,000,000.00				900,000,000.00	
19 SEP SCP010	1,400,000,000.00	2019-7-24	170 days	1,400,000,000.00	1,400,000,000.00				1,400,000,000.00	
19 SEP SCP011	1,700,000,000.00	2019-8-20	100 days	1,700,000,000.00	1,700,000,000.00				1,700,000,000.00	
19 SEP SCP012	2,400,000,000.00	2019-8-26	177 days	2,400,000,000.00	2,400,000,000.00				2,400,000,000.00	
19 SEP SCP013	1,200,000,000.00	2019-9-3	170 days	1,200,000,000.00	1,200,000,000.00				1,200,000,000.00	
19 SEP SCP014	1,000,000,000.00	2019-10-8	156 days	1,000,000,000.00	1,000,000,000.00				1,000,000,000.00	
19 SEP SCP015	1,000,000,000.00	2019-10-15	176 days	1,000,000,000.00	1,000,000,000.00				1,000,000,000.00	
19 SEP SCP016	2,700,000,000.00	2019-10-21	177 days	2,700,000,000.00	2,700,000,000.00				2,700,000,000.00	
19 SEP SCP017	2,500,000,000.00	2019-12-2	86 days	2,500,000,000.00	2,500,000,000.00				2,500,000,000.00	
20 SEP SCP001	1,700,000,000.00	2020-2-10	163 days	1,700,000,000.00		1,700,000,000.00			1,700,000,000.00	
20 SEP SCP002	1,800,000,000.00	2020-2-17	177 days	1,800,000,000.00		1,800,000,000.00			1,800,000,000.00	
20 SEP SCP003	2,500,000,000.00	2020-2-25	86 days	2,500,000,000.00		2,500,000,000.00			2,500,000,000.00	
20 SEP SCP004	1,900,000,000.00	2020-3-3	177 days	1,900,000,000.00		1,900,000,000.00			1,900,000,000.00	
20 SEP SCP005	1,200,000,000.00	2020-3-9	86 days	1,200,000,000.00		1,200,000,000.00			1,200,000,000.00	
20 SEP SCP006	1,500,000,000.00	2020-4-7	93 days	1,500,000,000.00		1,500,000,000.00			1,500,000,000.00	
20 SEP SCP007	2,700,000,000.00	2020-4-13	149 days	2,700,000,000.00		2,700,000,000.00			2,700,000,000.00	
20 SEP SCP008	1,300,000,000.00	2020-4-21	176 days	1,300,000,000.00		1,300,000,000.00			1,300,000,000.00	
20 SEP SCP009	2,000,000,000.00	2020-5-6	91 days	2,000,000,000.00		2,000,000,000.00			2,000,000,000.00	
20 SEP SCP010	2,500,000,000.00	2020-5-18	121 days	2,500,000,000.00		2,500,000,000.00			2,500,000,000.00	
20 SEP SCP011	1,200,000,000.00	2020-6-1	135 days	1,200,000,000.00		1,200,000,000.00			1,200,000,000.00	
20 SEP SCP012	1,700,000,000.00	2020-7-20	177 days	1,700,000,000.00		1,700,000,000.00				1,700,000,000.00
20 SEP SCP013	2,000,000,000.00	2020-8-3	79 days	2,000,000,000.00		2,000,000,000.00			2,000,000,000.00	
20 SEP SCP014	2,800,000,000.00	2020-8-10	79 days	2,800,000,000.00		2,800,000,000.00			2,800,000,000.00	
20 SEP SCP015	1,900,000,000.00	2020-8-24	86 days	1,900,000,000.00		1,900,000,000.00			1,900,000,000.00	
20 SEP SCP016	2,700,000,000.00	2020-9-7	177 days	2,700,000,000.00		2,700,000,000.00				2,700,000,000.00
20 SEP SCP017	2,500,000,000.00	2020-9-14	86 days	2,500,000,000.00		2,500,000,000.00			2,500,000,000.00	
20 SEP SCP018	1,700,000,000.00	2020-10-13	30 days	1,700,000,000.00		1,700,000,000.00			1,700,000,000.00	
20 SEP SCP019	2,000,000,000.00	2020-10-19	30 days	2,000,000,000.00		2,000,000,000.00			2,000,000,000.00	
20 SEP SCP020	1,700,000,000.00	2020-11-10	30 days	1,700,000,000.00		1,700,000,000.00			1,700,000,000.00	
20 SEP SCP021	2,000,000,000.00	2020-11-16	30 days	2,000,000,000.00		2,000,000,000.00			2,000,000,000.00	
20 SEP SCP022	1,900,000,000.00	2020-11-16	52 days	1,900,000,000.00		1,900,000,000.00				1,900,000,000.00
20 SEP SCP023	1,700,000,000.00	2020-12-7	247 days	1,700,000,000.00		1,700,000,000.00				1,700,000,000.00
20 SEP SCP024	2,500,000,000.00	2020-12-7	177 days	2,500,000,000.00		2,500,000,000.00				2,500,000,000.00
20 SEP SCP025	2,000,000,000.00	2020-12-14	268 days	2,000,000,000.00		2,000,000,000.00				2,000,000,000.00
20 SDNPC SCP001	1,500,000,000.00	2020-4-24	270 days	1,500,000,000.00		1,500,000,000.00				1,500,000,000.00
20 SDNPC SCP002	2,000,000,000.00	2020-6-18	270 days	2,000,000,000.00		2,000,000,000.00				2,000,000,000.00
20 SPIC SCP001 (RMB 2 billion)	2,000,000,000.00	2020-1-9	160 days	2,000,000,000.00		2,000,000,000.00			2,000,000,000.00	
20 SPIC SCP002 (RMB 2.5 billion)	2,500,000,000.00	2020-2-12	177 days	2,500,000,000.00		2,500,000,000.00			2,500,000,000.00	

Bond name	Par value	Issue date	Term of bond	Amount issued	Balance as at January 1, 2020	Amount issued in 2020	Interest calculated at par value	Amortization of premiums or discounts	Amount repaid in 2020	Balance as at December 31, 2020
20 SPIC SCP003 (RMB 3.1 billion)	3,100,000,000.00	2020-2-18	129 days	3,100,000,000.00		3,100,000,000.00			3,100,000,000.00	
20 SPIC SCP004 (RMB 3 billion)	3,000,000,000.00	2020-2-19	120 days	3,000,000,000.00		3,000,000,000.00			3,000,000,000.00	
20 SPIC SCP005 (RMB 2.7 billion)	2,700,000,000.00	2020-3-4	170 days	2,700,000,000.00		2,700,000,000.00			2,700,000,000.00	
20 SPIC SCP006 (RMB 2.6 billion)	2,600,000,000.00	2020-3-9	158 days	2,600,000,000.00		2,600,000,000.00			2,600,000,000.00	
20 SPIC SCP007 (RMB 1.8 billion)	1,800,000,000.00	2020-3-11	268 days	1,800,000,000.00		1,800,000,000.00			1,800,000,000.00	
20 SPIC SCP008 (RMB 1 billion)	1,000,000,000.00	2020-3-12	176 days	1,000,000,000.00		1,000,000,000.00			1,000,000,000.00	
20 SPIC SCP009 (RMB 2.4 billion)	2,400,000,000.00	2020-4-8	163 days	2,400,000,000.00		2,400,000,000.00			2,400,000,000.00	
20 SPIC SCP010 (RMB 2.2 billion)	2,200,000,000.00	2020-4-15	149 days	2,200,000,000.00		2,200,000,000.00			2,200,000,000.00	
20 SPIC SCP011 (RMB 2.2 billion)	2,200,000,000.00	2020-4-21	157 days	2,200,000,000.00		2,200,000,000.00			2,200,000,000.00	
20 SPIC SCP012 (RMB 2.4 billion)	2,400,000,000.00	2020-6-15	128 days	2,400,000,000.00		2,400,000,000.00			2,400,000,000.00	
20 SPIC SCP013 (RMB 2 billion)	2,000,000,000.00	2020-6-15	130 days	2,000,000,000.00		2,000,000,000.00			2,000,000,000.00	
20 SPIC SCP014 (RMB 2.3 billion)	2,300,000,000.00	2020-6-16	155 days	2,300,000,000.00		2,300,000,000.00			2,300,000,000.00	
20 SPIC SCP015 (RMB 1.6 billion)	1,600,000,000.00	2020-6-22	128 days	1,600,000,000.00		1,600,000,000.00			1,600,000,000.00	
20 SPIC SCP016 (RMB 3.2 billion)	3,200,000,000.00	2020-7-8	128 days	3,200,000,000.00		3,200,000,000.00			3,200,000,000.00	
20 SPIC SCP017 (RMB 1.1 billion)	1,100,000,000.00	2020-7-9	105 days	1,100,000,000.00		1,100,000,000.00			1,100,000,000.00	
20 SPIC SCP018 (RMB 3.1 billion)	3,100,000,000.00	2020-8-5	100 days	3,100,000,000.00		3,100,000,000.00			3,100,000,000.00	
20 SPIC SCP019 (RMB 2.6 billion)	2,600,000,000.00	2020-8-12	155 days	2,600,000,000.00		2,600,000,000.00				2,600,000,000.00
20 SPIC SCP020 (RMB 2.8 billion)	2,800,000,000.00	2020-8-20	154 days	2,800,000,000.00		2,800,000,000.00				2,800,000,000.00
20 SPIC SCP021 (RMB 1 billion)	1,000,000,000.00	2020-9-2	142 days	1,000,000,000.00		1,000,000,000.00				1,000,000,000.00
20 SPIC SCP022 (RMB 2.2 billion)	2,200,000,000.00	2020-9-9	149 days	2,200,000,000.00		2,200,000,000.00				2,200,000,000.00
20 SPIC SCP023 (RMB 2.4 billion)	2,400,000,000.00	2020-9-16	140 days	2,400,000,000.00		2,400,000,000.00				2,400,000,000.00
20 SPIC SCP024 (RMB 0.7 billion)	700,000,000.00	2020-9-21	109 days	700,000,000.00		700,000,000.00				700,000,000.00
20 SPIC SCP025 (RMB 2.1 billion)	2,100,000,000.00	2020-9-23	107 days	2,100,000,000.00		2,100,000,000.00				2,100,000,000.00

Bond name	Par value	Issue date	Term of bond	Amount issued	Balance as at January 1, 2020	Amount issued in 2020	Interest calculated at par value	Amortization of premiums or discounts	Amount repaid in 2020	Balance as at December 31, 2020
20 SPIC SCP026 (RMB 2.4 billion)	2,400,000,000.00	2020-10-19	130 days	2,400,000,000.00		2,400,000,000.00				2,400,000,000.00
20 SPIC SCP027 (RMB 1 billion)	1,000,000,000.00	2020-10-20	87 days	1,000,000,000.00		1,000,000,000.00				1,000,000,000.00
20 SPIC SCP028 (RMB 2 billion)	2,000,000,000.00	2020-10-21	140 days	2,000,000,000.00		2,000,000,000.00				2,000,000,000.00
20 SPIC SCP029 (RMB 2.1 billion)	2,100,000,000.00	2020-10-21	150 days	2,100,000,000.00		2,100,000,000.00				2,100,000,000.00
20 SPIC SCP030 (RMB 3.3 billion)	3,300,000,000.00	2020-11-11	149 days	3,300,000,000.00		3,300,000,000.00				3,300,000,000.00
20 SPIC SCP031 (RMB 3 billion)	3,000,000,000.00	2020-11-11	161 days	3,000,000,000.00		3,000,000,000.00				3,000,000,000.00
20 SPIC SCP032 (RMB 2.8 billion)	2,800,000,000.00	2020-11-16	150 days	2,800,000,000.00		2,800,000,000.00				2,800,000,000.00
20 SPIC SCP033 (RMB 2.3 billion)	2,300,000,000.00	2020-12-2	70 days	2,300,000,000.00		2,300,000,000.00				2,300,000,000.00
Total				168,164,490,000.00	39,041,516,591.00	126,800,000,000.00			117,141,516,591.00	48,700,000,000.00

8.50 Long-term borrowings

Item	Balance as at December 31, 2020	Balance as at January 1, 2020	Interest rate range as at December 31, 2020 (%)
Pledged borrowings	180,151,072,203.51	116,200,312,237.95	0.75-6.57
Mortgaged borrowings	14,067,047,690.51	20,513,097,401.65	4.18-5.39
Guaranteed borrowings	18,818,661,921.05	17,831,420,048.59	3.03-5.31
Credit borrowings	163,826,503,746.50	164,928,126,062.01	2.66-6.57
Total	376,863,285,561.57	319,472,955,750.20	

8.51 Bonds payable

8.51.1 Bonds payable

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Including: medium-term notes	56,400,000,000.00	60,754,995,000.00
Enterprise bonds	5,000,000,000.00	11,808,384,783.11
Corporate bonds	34,245,556,037.63	46,939,647,812.11
Total	95,645,556,037.63	119,503,027,595.22

8.51.2 Increase/decrease of bonds payable (excluding preferred shares, perpetual bonds and other financial instruments divided into the financial liabilities)

Bond name	Par value	Issue date	Term of bond	Amount issued	Balance as at January 1, 2020	Issued in 2020	Interest calculated at par value	Amortization of premiums or discounts	Repayment in 2020	Balance as at December 31, 2020
13 Enterprise Bond (RMB 2 billion)	2,000,000,000.00	2013-7-22	10 years	2,000,000,000.00	2,000,000,000.00					2,000,000,000.00
14 Enterprise Bond (RMB 2 billion)	2,000,000,000.00	2014-4-23	15 years	2,000,000,000.00	2,000,000,000.00					2,000,000,000.00
14 Enterprise Bond 002 (RMB 3 billion)	3,000,000,000.00	2014-9-17	15 years	3,000,000,000.00	3,000,000,000.00					3,000,000,000.00
15 MTN002 RMB 4 billion (15 SPIC MTN002)	4,000,000,000.00	2015-5-20	7 years	4,000,000,000.00	4,000,000,000.00					4,000,000,000.00
15 MTN004 RMB 5 billion MTN004	5,000,000,000.00	2015-9-7	7 years	5,000,000,000.00	5,000,000,000.00					5,000,000,000.00
16 Corporate Bond 004	1,500,000,000.00	2016-8-11	3+2 years	1,500,000,000.00	1,500,000,000.00				1,500,000,000.00	
17 Corporate Bond 001 (RMB 3.5 billion)	3,500,000,000.00	2020-5-16	2 years			519,998,000.00				519,998,000.00
17 Corporate Bond 002 (RMB 2.5 billion)	2,500,000,000.00	2020-5-21	2 years			328,045,000.00				328,045,000.00
17 Corporate Bond 003 (RMB 2 billion)	2,000,000,000.00	2020-7-9	2 years			342,650,000.00				342,650,000.00
17 Corporate Bond 004 (RMB 2 billion)	2,000,000,000.00	2020-7-11	2 years			43,930,000.00				43,930,000.00
17 Corporate Bond 005 (RMB 2 billion)	2,000,000,000.00	2020-7-23	2 years			221,400,000.00				221,400,000.00
17 Corporate Bond 006 (RMB 1.5 billion)	1,500,000,000.00	2020-8-8	2 years			70,000,000.00				70,000,000.00
17 Corporate Bond 007 (RMB 1.5 billion)	1,500,000,000.00	2020-8-10	2 years			110,000,000.00				110,000,000.00
18 Corporate Bond 001	3,000,000,000.00	2018-4-23	3 years	3,000,000,000.00	3,000,000,000.00				3,000,000,000.00	

Bond name	Par value	Issue date	Term of bond	Amount issued	Balance as at January 1, 2020	Issued in 2020	Interest calculated at par value	Amortization of premiums or discounts	Repayment in 2020	Balance as at December 31, 2020
(RMB 3 billion)										
18 Corporate Bond 002 (RMB 3 billion)	3,000,000,000.00	2018-5-18	3 years	3,000,000,000.00	3,000,000,000.00				3,000,000,000.00	
18 Corporate Bond 003 (RMB 3 billion)	3,000,000,000.00	2018-5-21	3 years	3,000,000,000.00	3,000,000,000.00				3,000,000,000.00	
18 Corporate Bond 004 (RMB 4 billion)	4,000,000,000.00	2018-8-22	3 years	4,000,000,000.00	4,000,000,000.00				4,000,000,000.00	
18 Corporate Bond 005 (RMB 3.5 billion)	3,500,000,000.00	2018-8-30	3 years	3,500,000,000.00	3,500,000,000.00				3,500,000,000.00	
18 Corporate Bond 006 (RMB 3.5 billion)	3,500,000,000.00	2018-9-7	3 years	3,500,000,000.00	3,500,000,000.00				3,500,000,000.00	
18 Corporate Bond 007 (RMB 3.5 billion)	3,500,000,000.00	2018-9-19	3 years	3,500,000,000.00	3,500,000,000.00				3,500,000,000.00	
18 Corporate Bond 008 (RMB 3.8 billion)	3,800,000,000.00	2018-10-22	5 years	3,800,000,000.00	3,800,000,000.00				2,400,000,000.00	1,400,000,000.00
18 Corporate Bond 009 (RMB 3.7 billion)	3,700,000,000.00	2018-10-22	5 years	3,700,000,000.00	3,700,000,000.00				3,700,000,000.00	
18 Corporate Bond 010 (RMB 4 billion)	4,000,000,000.00	2018-11-12	5 years	4,000,000,000.00	4,000,000,000.00				1,500,000,000.00	2,500,000,000.00
19 MTN001 (RMB 2.3 billion)	2,300,000,000.00	2019-2-18	3 years	2,300,000,000.00	2,300,000,000.00					2,300,000,000.00
19 MTN002 (RMB 1.7 billion)	1,700,000,000.00	2019-3-13	3 years	1,700,000,000.00	1,700,000,000.00					1,700,000,000.00
19 MTN003 (RMB 2.8 billion)	2,800,000,000.00	2019-4-11	3 years	2,800,000,000.00	2,800,000,000.00				31,373,102.57	2,768,626,897.43
19 MTN004 (RMB 2.9 billion)	2,900,000,000.00	2019-4-16	3 years	2,900,000,000.00	2,900,000,000.00					2,900,000,000.00
19 MTN005 (RMB 1.1 billion)	1,100,000,000.00	2019-4-18	3 years	1,100,000,000.00	1,100,000,000.00					1,100,000,000.00

Bond name	Par value	Issue date	Term of bond	Amount issued	Balance as at January 1, 2020	Issued in 2020	Interest calculated at par value	Amortization of premiums or discounts	Repayment in 2020	Balance as at December 31, 2020
19 MTN006 (RMB 2.3 billion)	2,300,000,000.00	2019-4-25	3 years	2,300,000,000.00	2,300,000,000.00					2,300,000,000.00
19 MTN007 (RMB 2 billion)	2,000,000,000.00	2019-5-8	3 years	2,000,000,000.00	2,000,000,000.00					2,000,000,000.00
19 MTN008 (RMB 1.8 billion)	1,800,000,000.00	2019-5-16	3 years	1,800,000,000.00	1,800,000,000.00					1,800,000,000.00
19 MTN009 (RMB 2 billion)	2,000,000,000.00	2019-5-23	3 years	2,000,000,000.00	2,000,000,000.00					2,000,000,000.00
19 MTN010 (RMB 2 billion)	2,000,000,000.00	2019-6-5	3 years	2,000,000,000.00	2,000,000,000.00					2,000,000,000.00
19 MTN011 (RMB 1.8 billion)	1,800,000,000.00	2019-6-13	3 years	1,800,000,000.00	1,800,000,000.00					1,800,000,000.00
19 MTN012 (RMB 2 billion)	2,000,000,000.00	2019-7-5	3 years	2,000,000,000.00	2,000,000,000.00					2,000,000,000.00
19 MTN013 (RMB 2.1 billion)	2,100,000,000.00	2019-7-17	3 years	2,100,000,000.00	2,100,000,000.00					2,100,000,000.00
19 MTN014 (RMB 2.1 billion)	2,100,000,000.00	2019-8-7	3 years	2,100,000,000.00	2,100,000,000.00					2,100,000,000.00
19 MTN015 (RMB 2.4 billion)	2,400,000,000.00	2019-8-22	3 years	2,400,000,000.00	2,400,000,000.00					2,400,000,000.00
19 MTN016 (RMB 1.6 billion)	1,600,000,000.00	2019-8-30	3 years	1,600,000,000.00	1,600,000,000.00					1,600,000,000.00
19 MTN017 (RMB 0.8 billion)	800,000,000.00	2019-9-26	3 years	800,000,000.00	800,000,000.00					800,000,000.00
19 MTN018 (RMB 2.4 billion)	2,400,000,000.00	2019-10-22	3 years	2,400,000,000.00	2,400,000,000.00					2,400,000,000.00
19 MTN019 (RMB 0.8 billion)	800,000,000.00	2019-11-20	3 years	800,000,000.00	800,000,000.00					800,000,000.00
20 MTN001 (RMB 2.5 billion)	2,500,000,000.00	2020-3-10	3 years	2,500,000,000.00		2,500,000,000.00				2,500,000,000.00
20 MTN002 (RMB 1.1 billion)	1,100,000,000.00	2020-3-16	3 years	1,100,000,000.00		1,100,000,000.00				1,100,000,000.00
20 MTN007 (RMB 2 billion)	2,000,000,000.00	2020-4-20	3 years	2,000,000,000.00		2,000,000,000.00				2,000,000,000.00
20 MTN006 (RMB 2.1 billion)	2,100,000,000.00	2020-4-14	3 years	2,100,000,000.00		2,100,000,000.00				2,100,000,000.00

Bond name	Par value	Issue date	Term of bond	Amount issued	Balance as at January 1, 2020	Issued in 2020	Interest calculated at par value	Amortization of premiums or discounts	Repayment in 2020	Balance as at December 31, 2020
20 MTN010 (RMB 0.8 billion)	800,000,000.00	2020-7-6	3 years	800,000,000.00		800,000,000.00				800,000,000.00
20 Corporate Bond 001 (RMB 2 billion)	2,000,000,000.00	2020-6-18	3 years	2,000,000,000.00		2,000,000,000.00				2,000,000,000.00
Industrial Bank Co., Ltd.	2,000,000,000.00	2019-6-5	2 years	2,000,000,000.00	1,000,000,000.00				1,000,000,000.00	
19 RHRZ PPN002	1,000,000,000.00	2019-7-15	3 years	1,000,000,000.00	1,000,000,000.00					1,000,000,000.00
Guotai Junan Private Equity Bond	1,000,000,000.00	2019-1-25	3 years	1,000,000,000.00	1,000,000,000.00				1,000,000,000.00	
Guotai Junan Private Equity Corporate Bond	1,000,000,000.00	2019-1-25	2 years	1,000,000,000.00	1,000,000,000.00					1,000,000,000.00
Orient Securities Co., Ltd.	1,000,000,000.00	2019-1-25	3 years	1,000,000,000.00	1,000,000,000.00				1,000,000,000.00	
19 RHRZ PPN001 - Agricultural Development Bank of China	1,000,000,000.00	2019-2-22	3 years	1,000,000,000.00	1,000,000,000.00					1,000,000,000.00
19 KF D1	240,000,000.00	2019-11-18	1 year	240,000,000.00	240,000,000.00				240,000,000.00	
19 KF 04	360,000,000.00	2019-10-24	3 years	360,000,000.00	360,000,000.00				360,000,000.00	
19 KF 02	560,000,000.00	2019-4-30	2+1 years	560,000,000.00	560,000,000.00				560,000,000.00	
19 KF 01	682,750,000.00	2019-3-20	3 years	682,750,000.00	682,750,000.00				682,750,000.00	
5-Year and 10-year USD bonds issued in 2016	7,841,040,000.00	2016-12-6	5-10 years	7,841,040,000.00	8,371,440,000.00			-525,375,189.75	5,878,904,547.83	1,967,160,262.42
3-Year and 5-year USD bonds issued in 2018	5,490,560,000.00	2018-10-30	3-5 years	5,490,560,000.00	5,580,960,000.00			-357,211,004.47	15,934,834.44	5,207,814,161.09
18 Corporate Bonds 002 privately offered by Road & Port Company	63,200,000.00	2018-8-9	5 years	63,200,000.00	63,200,000.00				63,200,000.00	
500 million of USD Bond of Financial Company	3,246,800,000.00	2015-8-11	5 years	3,246,800,000.00	5,099,128.38				5,099,128.38	
19 SEP PPN002	800,000,000.00	2019-6-3	2 years	800,000,000.00	800,000,000.00				800,000,000.00	
19 SEP PPN001	1,400,000,000.00	2019-5-13	2 years	1,400,000,000.00	1,400,000,000.00				1,400,000,000.00	

Bond name	Par value	Issue date	Term of bond	Amount issued	Balance as at January 1, 2020	Issued in 2020	Interest calculated at par value	Amortization of premiums or discounts	Repayment in 2020	Balance as at December 31, 2020
18 Corporate Bonds Mengzhong 02 privately offered by Road & Port Company - Jinzhou Port	250,000,000.00	2018-8-9	5 years	250,000,000.00	250,000,000.00				250,000,000.00	
18 Corporate Bonds Mengzhong 02 privately offered by Road & Port Company - Jinzhou-Chifeng Railway	231,800,000.00	2018-8-9	5 years	231,800,000.00	231,800,000.00				231,800,000.00	
18 Corporate Bonds Mengzhong 01 privately offered by Road & Port Company - Jinzhou-Chifeng Railway	255,000,000.00	2018-6-1	5 years	255,000,000.00	55,000,000.00					55,000,000.00
17 Corporate Bonds Mengzhong 01 privately offered by Road & Port Company - Jinzhou Port	400,000,000.00	2017-11-21	5 years	400,000,000.00	400,000,000.00				200,000,000.00	200,000,000.00
17 Corporate Bonds Mengzhong 01 privately offered by Road & Port Company - Jinzhou-Chifeng Railway	300,000,000.00	2017-11-21	5 years	300,000,000.00	300,000,000.00				300,000,000.00	
China Power International Development Limited - Panda Bonds	2,000,000,000.00	2018-10-15	3 years	2,000,000,000.00	2,000,000,000.00					2,000,000,000.00

Bond name	Par value	Issue date	Term of bond	Amount issued	Balance as at January 1, 2020	Issued in 2020	Interest calculated at par value	Amortization of premiums or discounts	Repayment in 2020	Balance as at December 31, 2020
China Power International Development Limited - Panda Bonds	2,000,000,000.00	2019-9-5	3 years	2,000,000,000.00	2,000,000,000.00					2,000,000,000.00
China Power International New Energy Holding Company Limited: Hong Kong Headquarters - Panda Bonds	802,778,466.84	2019-9-3	2 years	802,778,466.84	802,778,466.84				802,778,466.84	
Desulfurization and denitrification service fee income right asset-backed securities	550,000,000.00	2020-3-26	5 years	550,000,000.00		550,000,000.00			448,989,514.07	101,010,485.93
10 Million USD Bonds Payable	6,509,921,230.76	2020-07-27	5 years			6,509,921,230.76				6,509,921,230.76
RMB 1.5 billion of perpetual bonds in the aluminum profile infrastructure debt investment plan of Pingan Asset Management Company	1,500,000,000.00	2020-11-17		1,500,000,000.00		1,500,000,000.00				1,500,000,000.00
20 RHRZ PPN001	1,000,000,000.00	2020-2-14	3 years	1,000,000,000.00		1,000,000,000.00				1,000,000,000.00
Private Equity Corporate Bonds-Huatai-20 RH 01	1,000,000,000.00	2020-3-9	5 years	1,000,000,000.00		1,000,000,000.00				1,000,000,000.00
Jingan Branch of Shanghai Pudong Development Bank Co., Ltd.	500,000,000.00	2020-4-27	1 year	500,000,000.00		500,000,000.00				500,000,000.00
Guotai Junan Securities and Huatai United Securities	600,000,000.00	2020-8-3	5 years	600,000,000.00		600,000,000.00				600,000,000.00

Bond name	Par value	Issue date	Term of bond	Amount issued	Balance as at January 1, 2020	Issued in 2020	Interest calculated at par value	Amortization of premiums or discounts	Repayment in 2020	Balance as at December 31, 2020
20 RHRZ PPN002	500,000,000.00	2020-8-24	3 years	500,000,000.00		500,000,000.00				500,000,000.00
Guotai Junan Securities and Huatai United Securities	400,000,000.00	2020-11-12	5 years	400,000,000.00		400,000,000.00				400,000,000.00
Bank of Beijing	200,000,000.00	2020-10-21	2 years	200,000,000.00		200,000,000.00				200,000,000.00
Total				140,073,928,466.84	119,503,027,595.22	24,895,944,230.76		-882,586,194.22	47,870,829,594.13	95,645,556,037.63

Remark: The Company issued corporate bonds in 2017 (with a total of seven phases and a total face value of RMB 15 billion), the opening balance of RMB 8.138 billion, due within one year, are reclassified as "non-current liabilities maturing within one year". In 2020, RMB 6.502 billion was repaid for this bond, and the remaining RMB 1.636 billion will be postponed for two years. In 2020, the deferred amount will be disclosed in this issue.

8.52 Preferred stock, perpetual bond and financial instruments

8.52.1 Preferred stocks, perpetual bonds and other financial instruments issued as at December 31, 2020

Financial Instruments issued	Issuing time	Accounting classification	Stock rate or interest rate	Issuing price	Quantity	Amount	Due date or renewal	Conversion condition	Conversion details
15 SPIC Renewable Bonds	2015-6-8	Perpetual bond	0.06	100.00	30,000,000	3,000,000,000.00	3+N years		
16 Renewable Corporate Bonds 001 (Phase I)	2016-6-29	Perpetual bond	0.04	100.00	40,000,000	4,000,000,000.00	5+N years		
17 Perpetual Bond 001 Y1	2017-8-16	Perpetual bond	0.05	100.00	15,000,000	1,500,000,000.00	5+N years		
17 Perpetual Bond 002 Y2	2017-10-16	Perpetual bond	0.05	100.00	15,000,000	1,500,000,000.00	5+N years		
17 Perpetual Bond 003 Y3	2017-10-18	Perpetual bond	0.05	100.00	15,000,000	1,500,000,000.00	5+N years		
18 Renewable Bonds 001	2018-6-4	Perpetual bond	0.06	100.00	25,000,000	2,500,000,000.00	5+N years		

Financial Instruments issued	Issuing time	Accounting classification	Stock rate or interest rate	Issuing price	Quantity	Amount	Due date or renewal	Conversion condition	Conversion details
18 Renewable Bonds 002	2018-6-8	Perpetual bond	0.06	100.00	15,000,000	1,500,000,000.00	5+N years		
18 SPIC MTN001A	2018-11-15	Perpetual bond	0.05	100.00	22,000,000	2,200,000,000.00	3+N years		
18 SPIC MTN001B	2018-11-15	Perpetual bond	0.05	100.00	8,000,000	800,000,000.00	5+N years		
18 SPIC MTN002A	2018-12-6	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	3+N years		
18 SPIC MTN002B	2018-12-6	Perpetual bond	0.05	100.00	10,000,000	1,000,000,000.00	5+N years		
19 Perpetual Bonds 001 (19 SPIC Y1)	2019-1-15	Perpetual bond	0.04	100.00	11,000,000	1,100,000,000.00	3+N years		
19 Perpetual Bonds 001 (19 SPIC Y2)	2019-1-15	Perpetual bond	0.04	100.00	9,000,000	900,000,000.00	5+N years		
19 Perpetual Bonds 002 (19 SPIC Y3)	2019-4-10	Perpetual bond	0.04	100.00	14,000,000	1,400,000,000.00	3+N years		
19 Perpetual Bonds 002 (19 SPIC Y4)	2019-4-10	Perpetual bond	0.05	100.00	6,000,000	600,000,000.00	5+N years		
19 Perpetual Bonds 003 (19 SPIC Y5)	2019-4-23	Perpetual bond	0.04	100.00	15,000,000	1,500,000,000.00	3+N years		
19 Perpetual Bonds 003 (19 SPIC Y6)	2019-4-23	Perpetual bond	0.05	100.00	5,000,000	500,000,000.00	5+N years		
19 Perpetual Bonds 004 (19 SPIC Y7)	2019-5-8	Perpetual bond	0.04	100.00	15,000,000	1,500,000,000.00	3+N years		

Financial Instruments issued	Issuing time	Accounting classification	Stock rate or interest rate	Issuing price	Quantity	Amount	Due date or renewal	Conversion condition	Conversion details
19 Perpetual Bonds 004 (19 SPIC Y8)	2019-5-8	Perpetual bond	0.05	100.00	5,000,000	500,000,000.00	5+N years		
19 Perpetual Bonds 005 (19 SPIC Y9)	2019-5-16	Perpetual bond	0.04	100.00	14,000,000	1,400,000,000.00	3+N years		
19 Perpetual Bonds 005 (19 SPIC Y10)	2019-5-16	Perpetual bond	0.05	100.00	6,000,000	600,000,000.00	5+N years		
19 Perpetual Bonds 006 (19 SPIC Y11)	2019-5-24	Perpetual bond	0.04	100.00	13,000,000	1,300,000,000.00	3+N years		
19 Perpetual Bonds 006 (19 SPIC Y12)	2019-5-24	Perpetual bond	0.05	100.00	7,000,000	700,000,000.00	5+N years		
19 Perpetual Bonds 007 (19 SPIC Y13)	2019-7-11	Perpetual bond	0.04	100.00	13,000,000	1,300,000,000.00	3+N years		
19 Perpetual Bonds 007 (19 SPIC Y14)	2019-7-11	Perpetual bond	0.04	100.00	7,000,000	700,000,000.00	5+N years		
19 Perpetual Bonds 008 (19 SPIC Y15)	2019-7-22	Perpetual bond	0.04	100.00	13,000,000	1,300,000,000.00	3+N years		

Financial Instruments issued	Issuing time	Accounting classification	Stock rate or interest rate	Issuing price	Quantity	Amount	Due date or renewal	Conversion condition	Conversion details
19 Perpetual Bonds 008 (19 SPIC Y16)	2019-7-22	Perpetual bond	0.04	100.00	7,000,000	700,000,000.00	5+N years		
19 Perpetual Bonds 009 (19 SPIC Y17)	2019-7-30	Perpetual bond	0.04	100.00	11,000,000	1,100,000,000.00	3+N years		
19 Perpetual Bonds 009 (19 SPIC Y18)	2019-7-30	Perpetual bond	0.04	100.00	9,000,000	900,000,000.00	5+N years		
19 Perpetual Bonds 010 (19 SPIC Y19)	2019-8-15	Perpetual bond	0.04	100.00	6,000,000	600,000,000.00	3+N years		
19 Perpetual Bonds 010 (19 SPIC Y20)	2019-8-15	Perpetual bond	0.04	100.00	14,000,000	1,400,000,000.00	5+N years		
19 Perpetual Bonds 011 (19 SPIC Y21)	2019-8-23	Perpetual bond	0.04	100.00	10,000,000	1,000,000,000.00	3+N years		
19 Perpetual Bonds 011 (19 SPIC Y22)	2019-8-23	Perpetual bond	0.04	100.00	10,000,000	1,000,000,000.00	5+N years		
19 Perpetual Bonds 012 (19 SPIC Y23)	2019-8-30	Perpetual bond	0.04	100.00	10,000,000	1,000,000,000.00	3+N years		

Financial Instruments issued	Issuing time	Accounting classification	Stock rate or interest rate	Issuing price	Quantity	Amount	Due date or renewal	Conversion condition	Conversion details
19 Perpetual Bonds 012 (19 SPIC Y24)	2019-8-30	Perpetual bond	0.04	100.00	10,000,000	1,000,000,000.00	5+N years		
19 Perpetual Bonds 013 (19 SPIC Y25)	2019-10-22	Perpetual bond	0.04	100.00	5,000,000	500,000,000.00	3+N years		
19 Perpetual Bonds 013 (19 SPIC Y26)	2019-10-22	Perpetual bond	0.04	100.00	5,000,000	500,000,000.00	5+N years		
20 SPIC MTN003	2020-3-24	Perpetual bond	0.03	100.00	22,000,000	2,200,000,000.00	3+N years		
20 SPIC MTN004	2020-3-25	Perpetual bond	0.03	100.00	23,000,000	2,300,000,000.00	3+N years		
20 SPIC MTN005	2020-3-26	Perpetual bond	0.03	100.00	23,000,000	2,300,000,000.00	3+N years		
20 SPIC MTN008	2020-4-20	Perpetual bond	0.03	100.00	17,000,000	1,700,000,000.00	3+N years		
20 SPIC MTN009	2020-5-7	Perpetual bond	0.03	100.00	15,000,000	1,500,000,000.00	3+N years		
20 SPIC MTN010	2020-5-7	Perpetual bond	0.04	100.00	5,000,000	500,000,000.00	5+N years		
20 SPIC MTN011	2020-7-2	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	3+N years		
20 SPIC MTN012	2020-7-3	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	3+N years		
20 SPIC MTN013	2020-7-17	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	3+N years		

Financial Instruments issued	Issuing time	Accounting classification	Stock rate or interest rate	Issuing price	Quantity	Amount	Due date or renewal	Conversion condition	Conversion details
Phase-1 Perpetual bonds in 2020	2020-5-27	Perpetual bond	0.03	100.00	20,000,000	2,000,000,000.00	3+N years		
Phase-2 Perpetual bonds in 2020	2020-6-10	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	3+N years		
Phase-3 Perpetual bonds in 2020	2020-7-6	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	3+N years		
Phase-4 Perpetual bonds in 2020	2020-7-15	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	3+N years		
Phase-5 Perpetual bonds in 2020	2020-7-28	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	3+N years		
Phase-6 Perpetual bonds in 2020	2020-8-6	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	3+N years		
Phase-7 Perpetual bonds in 2020	2020-8-13	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	3+N years		
Phase-8 Perpetual bonds in 2020	2020-8-20	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	3+N years		
Phase-9 Perpetual bonds in 2020	2020-9-14	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	3+N years		
20 SPIC MTN014	2020-10-13	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	3+N years		
20 SPIC MTN015	2020-10-20	Perpetual bond	0.04	100.00	18,000,000	1,800,000,000.00	3+N years		

Financial Instruments issued	Issuing time	Accounting classification	Stock rate or interest rate	Issuing price	Quantity	Amount	Due date or renewal	Conversion condition	Conversion details
Phase-10 Perpetual bonds in 2020	2020-10-26	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	2+N years		
20 SPIC MTN016	2020-10-22	Perpetual bond	0.04	100.00	15,000,000	1,500,000,000.00	2+N years		
20 SPIC MTN017	2020-11-6	Perpetual bond	0.04	100.00	23,000,000	2,300,000,000.00	2+N years		
20 SPIC MTN018	2020-11-9	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	2+N years		
20 SPIC MTN019	2020-11-12	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	2+N years		
20 SPIC MTN020	2020-11-17	Perpetual bond	0.04	100.00	20,000,000	2,000,000,000.00	2+N years		
20 SPIC MTN021	2020-11-24	Perpetual bond	0.04	100.00	19,000,000	1,900,000,000.00	2+N years		
20 SPIC MTN022	2020-12-8	Perpetual bond	0.04	100.00	24,000,000	2,400,000,000.00	2+N years		
20 SPIC MTN023	2020-12-10	Perpetual bond	0.04	100.00	22,000,000	2,200,000,000.00	2+N years		
20 SPIC MTN024	2020-12-17	Perpetual bond	0.04	100.00	25,000,000	2,500,000,000.00	2+N years		
20 SPIC MTN025	2020-12-23	Perpetual bond	0.04	100.00	25,000,000	2,500,000,000.00	2+N years		
20 SPIC MTN026	2020-12-24	Perpetual bond	0.04	100.00	23,000,000	2,300,000,000.00	2+N years		
Minmetals Trust Sichuan Perpetual Bonds 001	2018-9-29	Perpetual bond	0.07	100.00	4,000,000	400,000,000.00	5+N years		

Financial Instruments issued	Issuing time	Accounting classification	Stock rate or interest rate	Issuing price	Quantity	Amount	Due date or renewal	Conversion condition	Conversion details
Minmetals Trust Sichuan Perpetual Bonds 002	2018-10-19	Perpetual bond	0.07	100.00	2,500,000	250,000,000.00	5+N years		
Minmetals Trust Sichuan Perpetual Bonds 003	2018-11-7	Perpetual bond	0.07	100.00	1,500,000	150,000,000.00	5+N years		
Shanghai Trust-Guizhou Jinyuan Perpetual Bonds Plan	2015-12-25	Perpetual bond	0.05	100.00	50,000,000	5,000,000,000.00	7+N years		
19 SEP MTN 001	2019-11-4	Perpetual bond	0.04	100.00	16,000,000	1,600,000,000.00	3+N years		
19 SEP MTN 002	2019-11-14	Perpetual bond	0.04	100.00	16,000,000	1,600,000,000.00	3+N years		
Hong Kong Treasury Perpetual Bonds in 2018	2018-11-22	Perpetual bond	0.06			3,431,600,000.00	3.5+N years		
Hwabao Trust Perpetual Bonds of Huanghe	2019-12-30	Perpetual bond	Benchmark interest rate over the same period issued by the People's Bank of China			1,500,000,000.00	3+N years		

Financial Instruments issued	Issuing time	Accounting classification	Stock rate or interest rate	Issuing price	Quantity	Amount	Due date or renewal	Conversion condition	Conversion details
Perpetual bonds in Laxiwa infrastructure debt investment plan of Ping An Asset Management Co., Ltd.	2020-12-30	Perpetual bond	0.05			700,000,000.00	3+N years		
Share 3020 of China Power Development with Non-voting Convertible to Preferred Stocks	2017-12-27	Preferred stock			3,020股	3,597,775,558.20			
20 China Power International MTN001	2020-11-5	Perpetual bond	0.04		15,000,000	1,500,000,000.00	3+N years		
20 China Power International MTN002	2020-11-18	Perpetual bond	0.05		15,000,000	1,500,000,000.00	3+N years		
SPIC International Energy Preferred Stocks in 2019	2019-12-24	Preferred stock				1,026,000,000.00			

Financial Instruments issued	Issuing time	Accounting classification	Stock rate or interest rate	Issuing price	Quantity	Amount	Due date or renewal	Conversion condition	Conversion details
Jinyuan Zhongshui Preferred Stocks in 2018	2018-12-31	Preferred stock		100.00	5,000,000	500,000,000.00			
Guizhou Zhongshui Energy Preferred Stocks	2019-5-28	Preferred stock		100.00	4,700,000	470,000,000.00			
Lujiazui Trust SPIC Zhongwei Thermal Power Perpetual Bonds	2016-12-14	Perpetual bond	0.05			1,000,000,000.00	5+N years		
Lujiazui Trust SPIC Zhongwei New Energy Perpetual Bonds	2016-12-14	Perpetual bond	0.05			4,000,000,000.00	5+N years		
Minmetals CITIC Trust Shanxi Aluminum Perpetual Bonds	2016-12-29	Perpetual bond	0.05			500,000,000.00	8+N years		
Shanghai International Trust Shanxi	2016-12-30	Perpetual bond	0.05			301,000,000.00	8+N years		

Financial Instruments issued	Issuing time	Accounting classification	Stock rate or interest rate	Issuing price	Quantity	Amount	Due date or renewal	Conversion condition	Conversion details
Aluminum Perpetual Bonds									
Total						139,426,375,558.20			

8.52.2 Itemized main provisions on financial instruments

(1) 15 SPIC Renewable Bonds: This bond takes one repricing cycle every three interest-bearing years. At the end of each repricing cycle, the issuer has the right to choose to extend the duration of the bond by one repricing cycle (that is, to continue for 3 years), or to redeem the bond in full. The bonds are in the form of floating interest rates, and simple interest is calculated annually. During the first four repricing cycles (the first interest-bearing year to the twelfth interest-bearing year) of the bond, the coupon rate is determined by the benchmark interest rate plus the basic interest margin. If the issuer chooses to extend the duration of the bond, the coupon rate applicable to each repricing cycle is adjusted to the current benchmark interest rate plus the basic interest rate plus 300 basis points since the fifth repricing cycle (1 basis point equivalent to 0.01%, the same below). The basic interest spread of this bond and the coupon rate of the initial issuance will be determined based on the results of bookkeeping and filing, and reported to the National Development and Reform Commission and the People's Bank of China for record before the announcement. In terms of this bond, interest will be paid once a year. Unless mandatory interest payment event, on each interest payment date of the current bonds, the issuer can choose to defer to pay the current interest and all the interest and fructus that have been deferred in accordance with the present article to the next interest payment date and does not subject to any restrictions on the number of deferred interest payments. Within 12 months before the interest payment date, if the following events occur, the issuer shall not defer the current interest and all interest and its dividends that have been deferred in accordance with this article: dividends to shareholders, or reduction of registered capital.

(2) 16 Renewable Corporate Bonds 001: This bond takes every 5 interest-bearing years as one cycle. At the end of each cycle, the issuer has the right to choose to extend the term of the current bond by 1 cycle (that is, to extend it by 5 years), or choose to pay the bond in full at the end of the period. The interest rate of the current bond is 3.65%, and simple interest is calculated annually, excluding compound interest. The deferred interest will be calculated at the coupon rate of the current period during the period deferred on an accumulation basis. The coupon rate in the first cycle is the initial benchmark rate plus the initial spread, and the coupon rate in the subsequent cycle is adjusted to the current benchmark rate plus the initial spread plus 300 basis points. The initial spread is the coupon rate of the first cycle minus the initial benchmark interest rate. If in the future, due to factors such as macroeconomic and policy changes, the current benchmark interest rate is not available on the interest rate reset date, the current benchmark interest rate will be the same as the benchmark interest rate prior to the interest rate reset date. The right of the issuer to make a deferred payment of interest is attached. Unless mandatory interest payment event, on each interest payment date of the current bonds, the issuer can choose to defer to pay the current interest and all the interest and fructus that have been deferred in accordance with the present article to the next interest payment date and does not subject to any restrictions on the number of deferred interest payments; the foregoing deferred interest does not belong to the issuer's failure to pay the agreed interest in full. If the issuer decides to defer the interest payment, the issuer shall disclose the Announcement on Deferred Interest Payment 5 working days before the interest payment date.

(3) Renewable corporate bonds in 2017: the interest rate of the phase-I bond is 5.10%, the interest rate of the phase-II bond is 5.14%, and the interest rate of the phase-III bond is 5.13%. The rest of the content is the same as the "(2) Renewable corporate bonds in 2016 (phase-I)".

(4) Renewable Corporate Bonds in 2018: The phase-I bonds have a term of 5 + N and a fixed interest rate. They can be renewed at the end of each cycle (that is, 5 years) or redeemed; the interests thereon shall be paid per year, and every 5 interest-bearing years is a cycle. At the end of each cycle, the issuer has the right to choose to extend the term of the current bonds by 1 cycle (that is, to extend the term by 5 years), or choose to redeem the bonds in full at the end of the cycle. The term of the phase-II bonds is 3 + N, and the rest of the content is the same as that of the phase-I bonds.

(5) Perpetual Corporate Medium-term Notes in 2018: The term of the phase-I MTN001A bonds is 3 + N years, and the issuer's redemption option right is attached to the third and subsequent interest payment days of the current medium-term notes, with fixed interest rates. The term of the phase-I MTN001B bonds is 5 + N years, and the term of the phase-II MTN002A bonds is 3 + N years; the term of the phase-II MTN002B bonds is 5 + N years, and the rest of the content is the same as that of the phase-I MTN001A bonds.

(6) SPIC Perpetual Bonds in 2019: The Company publicly issued 13 issues of renewable corporate bonds in 2019, each of which is divided into two varieties. The basic term of Variety 1 is 3 years. At the end of the agreed basic term and at the end of each cycle, the Issuer has the right to exercise the option of renewal and extend it by one cycle (i.e. 3 years) according to the agreed basic term. The interest is settled at a fixed interest rate; interest payment is made per year. The basic term of Variety 2 is 5 years. At the end of the agreed basic term and at the end of each cycle, the Issuer has the right to exercise the option of renewal and extend it by one cycle (i.e. 5 years)

according to the agreed basic term. The interest is settled at a fixed interest rate; interest payment is made per year.

(7) Perpetual Corporate Medium-term Notes in 2020: The Company publicly issued 21 issues of medium-term notes in 2020. The term of the MTN009B bonds is 5+N years, and the term of other perpetual medium-term notes is 3+N years. The issuer shall publish the Interest Payment Announcement on the information media designated by the competent authority in accordance with relevant regulations 5 working days before each interest payment date of the current medium-term notes, and the Shanghai Clearing House will complete the payment as an agent at the coupon rate on the interest payment day. If the issuer decides to defer the payment of interest, the issuer and relevant intermediaries shall disclose the Announcement on the Deferred Payment of Interest 10 working days before the interest payment date.

(8) SPIC Perpetual Bonds in 2020: The Company publicly issued 10 issues of renewable corporate bonds in 2020. The basic term of the phase 10 bonds is 2 years, and the basic term of other bonds is 3 years. This issue of bonds takes every 3 (or 2) interest-bearing years as 1 repricing cycle. At the end of each repricing cycle, the issuer has the right to choose to extend the maturity of the current bond by 1 cycle, that is, 3 years (or 2 years), or choose to redeem the bonds in full at maturity at the end of the period.

(9) Minmetals Trust Sichuan Perpetual Bonds (Phase I), (Phase II) (Phase III): The financial instrument has a non-fixed term, which is calculated from the date of granting investment funds (inclusive). Unless otherwise specified or agreed by both parties, the issuer shall have the right to choose to repay the principal, unpaid interest and all other unpaid amounts due on the corresponding day after 5 years from the date of granting investment funds, but the investor should be notified in writing 90 days in advance, with the initial annual interest rate at 6.8%, which will remain unchanged for 5 years from the date of paying the investment funds; the interest rate for 5-8 years was at 9.8%, and will be adjusted once every three years after 8 years; the adjusted interest rate shall be the interest rate used on the day before the day of the adjustment plus 1%; when the interest rate reaches 16% that year, it will no longer be adjusted.

(10) Shanghai Trust - Guizhou Jinyuan Perpetual Bonds Plan: with Shanghai Trust as Party A and Guizhou Jinyuan as Party B, both parties confirm that the period for each investment provided by Party A is an indefinite period, starting from the date when each investment fund provided by Party A reaches the bank account designated by Party B to receive investment funds (hereinafter referred to as the "investment fund payment date"). Unless otherwise provided in this contract or otherwise agreed in writing by both parties, Party B has the right to choose to repay the investment principal of the investment capital under this contract on any interest payment date after 7 years from each investment fund payment date, and settle the investment interest corresponding to the principal of the investment fund and all other payable but unpaid items, with Party A being notified in writing 90 days in advance. For each investment fund, the initial annual interest rate is 5.39%, which remains unchanged for 7 interest-bearing years from the investment fund payment date. The investment interest rate shall be adjusted once on the first day of the eighth interest-bearing year (hereinafter referred to as the "adjustment date") from the date of the investment fund payment date, and the adjusted interest rate shall be the interest rate applicable to the day before the adjustment date plus 200bp (the investment interest rate after adjustment is 7.39%), and shall remain unchanged during the 8th to 10th interest-bearing years. Thereafter, the investment interest rate will be adjusted every three years according to the above-mentioned method, and each time the adjustment range is 200bp. Deferred interest payment terms: Unless there is a mandatory interest payment event, Party B shall notify Party A in writing 20 working days in advance before each interest payment date. Party B may choose to postpone the current interest and all interest and its fructus that have been deferred in accordance with this clause until the next interest payment date, and is not limited by the number of deferred interest payments. During the deferred period, each deferred interest shall be increased by 300bp according to the current coupon rate to accumulate interest. Where Party B has deferred interest payment, until the deferred interest and its fructus are fully paid off, it cannot engage in the following acts: (1) issuing dividends to shareholders or paying interest to those whose order of repayment is inferior to the securities with perpetual claims that Party A invested under this contract; or (2) reducing the registered capital or repaying those whose order of repayment is inferior to the securities with perpetual claims that Party A invested under this contract.

(11) Shanghai Electric Power Perpetual Medium-term Notes in 2019: the phase-I medium-term notes in 2019 were issued with a total amount of RMB 1.6 billion, a coupon rate of 4.15%, and a term of 3+N years; the phase-II medium-term notes in 2019 were issued with a total amount of RMB 1.6 billion, a coupon rate of 3.99%, and a term of 3+N years.

(12) Hong Kong Treasury Perpetual Bonds in 2018: The issuer can exercise the option of redemption and can only redeem it in full. The coupon rate is 5.8%, with the simple interest calculated annually and excluding compound interest. The interest is paid every six months. The deferred interest will be calculated at the coupon rate of the current period during the period deferred on an accumulation basis. The reset date of the bond interest rate is the first optional redemption date, and the reset will be made every three years in the future. The formula for the reset interest rate is the sum of the following items: (a) initial interest margin 2.851% (b) US Treasury bond rate (c) 4%. The right of the issuer to make a deferred payment of interest is attached. Unless mandatory interest payment event, on each interest payment date of the current bonds, the issuer can choose to defer to pay the current interest and all the interest and fruits that have been deferred in accordance with the present article to the next interest payment date and does not subject to any restrictions on the number of deferred interest payments; the foregoing deferred interest does not belong to the issuer's failure to pay the agreed interest in full. If the issuer decides to defer the payment of interest, it shall send a notice 15 working days before the interest payment date.

(13) Hwabao Trust - Huanghe Renewable Bonds: The Company's subsidiary Huanghe Hydropower Development Co., Ltd. and Hwabao Trust Co., Ltd. signed the Renewable Loan Contract (contract No.: 120160095800010002). The initial borrowing period is 3 years, and each year after the initial borrowing period expires is a renewed borrowing period. The borrower has the right to choose to extend the loan under this contract for one year before expiry of each borrowing period, or choose to return the full loan principal balance and all the unpaid interest payable, fruit interest, penalty interest and other expenses to the lender on the expiration date of each loan term. The loan interest rate under this contract is a floating interest rate, which is composed of an initial floating interest rate and a reset floating interest rate. After each loan term expires, the loan interest rate will be reset according to this contract, specifically: the initial floating interest rate is the benchmark interest rate, that is, 4.75%. Replacement floating interest rate: From the next day after each loan term expires, the trust loan interest rate shall be reset in accordance with this contract. The annualized interest rate after each reset shall jump by 200 basis points on the basis of the loan interest rate before reset, that is, the replacement interest rate = the interest rate executed in the current year + (the number of periods previously extended + 1) * 200BP.

(14) RMB 700 million of perpetual bonds in Laxiwa infrastructure debt investment plan of Ping An Asset Management Co., Ltd.

① The initial term of the loan is 3 years, starting from when the funds are transferred to the special account for investment funds. 90 days before the expiration of each loan term (including the initial loan term and the renewal term, the same below), the borrower has the right to choose to extend the loan term under this contract for one year, or chooses to return the full loan principal balance and all the unpaid interest payable, fruit interest, penalty interest and other expenses to the lender on the expiration date of each loan term.

② Within the 24 months before the borrower's interest settlement date, if one of the following events occurs, the borrower shall not defer the interest of the interest accrual period and all the deferred interest and the fruits as agreed in this contract: 1) where a borrower distributes dividends to shareholders, including making shareholder resolutions to distribute dividends to shareholders, except for state-owned capital gains turned in as stipulated; 2) where the borrower reduces the registered capital; 3) where the borrower pays interest or redemption to other perpetual debts or securities with inferior order in this debt plan.

(15) 3,020 Shares of China Power Development with Non-voting Convertible to Preferred Stocks: The dividend rate is set at 6MLIBOR + 450BPs. 6MLIBOR is determined according to the actual market value at the time of delivery and is adjusted once a year. If the dividend rate of preferred stocks exceeds 9%, China Power International shall have the right to require CNIC to transfer all the preferred stocks held to China Power International at the issue price and settle the dividends of the preferred stocks in cash. If convertible preferred stocks with non-voting rights are fully converted into ordinary shares, Seth Holdings Limited will hold approximately 33.38% of the voting rights of China Power Development.

(16) SPIC Perpetual Corporate Medium-term Notes in 2020: two issues of perpetual medium-term notes were issued with the term of 3 + N years, and the issuer's redemption option right is attached to the third and subsequent interest payment days of the current medium-term notes, with fixed interest rates.

(17) SPIC International Energy Preferred Stocks in 2019: The dividends should be distributed no later than January 30 of each fiscal year, and the pre-audit of the cooperative company's distributable profits should be conducted in accordance with international accounting standards; if the pre-audit confirms that the cooperative company has profits that can be distributed, and the preferred stock dividend payable to the preferred stock investors should be first paid from the profits of the cooperative company. The dividend rate of preferred stocks is 5.5%. When the protection mechanism for investors stipulated in the agreement is triggered, the dividend rate of preferred stocks is changed to 8.5%; from the 11th anniversary date of the delivery date, the investor has the right to give the issuer written notice, requiring the issuer to repurchase or redeem all the investors 'preferred stocks at the agreed repurchase consideration within 60 natural days starting from the notice date.

(18) Jinyuan Zhongshui Preferred Stocks in 2019: The dividend rate is set as: the dividend rate within 5 years is 6.5%; the 6th year is the first dividend adjustment period, with the dividend adjusted to 8.5%; from the 7th year, there is a dividend adjustment period every 2 years, with a jump by 200BP on the basis of the previous year's dividend rate. When the dividend rate reaches 12%, it is no longer adjusted. If the issuer fails to pay dividends to Party B in a certain interest-bearing year, the difference will accumulate in the next year, and the difference compensation shall be calculated at a simple interest rate of 6.5% from the corresponding interest payment date to the date of actual distribution and payment to Party B, and shall be distributed and paid to the investor in the actual distribution. After the expiration of 5 years from December 19, 2018, the issuer has the right to exercise the right of redemption. The redemption price for a preferred stock converted from bond per share is the sum of the par value, the unpaid dividends per share due and payable, and the difference compensation (if any).

(19) Shanghai Lujiazui Trust Co., Ltd. is a perpetual bond equity investor absorbed by Zhongwei New Energy Company and Zhongwei Thermal Power Company, subordinate to the Company's subsidiary SPIC Ningxia Qingtongxia Energy Aluminum Industry Group Co., Ltd., and it has invested RMB 4 billion and RMB 1 billion in equity in perpetual bonds in the two companies. According to the perpetual bond equity investment contract, the perpetual bond is subject to an indefinite investment period. After 5 years of investment, the two companies have the right to choose to repay all the money on any interest payment date, except for the occurrence of or existence of major adverse circumstances stipulated in the contract between the two companies (the two companies believe that it is agreed that major adverse circumstances can be independently controlled by them, and the probability of occurrence or existence is extremely small), the investor cannot request early repayment. The initial annual interest rate of the investment is 5.38% and stays unchanged for 5 years; the interest rate is raised by 200DP (2%, after the increase is 7.38%) within three years after the investment period expires 5 years; and the interest rate is increased by 300DP (3%) every three years thereafter. Investment interest is settled once a quarter, except for the existence of mandatory interest payment events (the two companies have dividends issued to shareholders, capital reductions or other perpetual bond principal repayment or interest payments within 12 months before interest payment), the two companies may choose to postpone the interest payment without at their own will, and the interest on the deferred payment will be calculated by raising the interest rate of the current coupon rate by 3%.

(20) CITIC Trust Shanxi Aluminum Perpetual Bonds: The term of the financial instrument is an indefinite period, counting from the date on which the funds provided reach the account received by the issuer; unless otherwise specified or agreed by both parties, the issuer shall have the right to choose to repay the principal, unpaid interest and all other outstanding payments on any interest payment date after 8 years from the date of paying investment funds, but the investor should be notified in writing 90 days in advance, with the initial annual interest rate at 5.145%, which will remain unchanged for 8 interest-bearing years from the date of paying the investment funds. The interest rate is adjusted once on the first day of the 9th interest-bearing year from the date of granting investment funds. The adjusted interest rate is the interest rate used on the day before the adjustment day plus 200bps, and remains unchanged during the 9th to 11th interest-bearing years. Thereafter, the investment interest rate will be adjusted every three years, and each adjustment range will be 300bps; March 20, June 20, September 20, and December 20 are the interest payment dates each year. The current principal and interest payable shall be transferred to the special account for investment funds 10 working days before the payment date.

(21) Shanghai International Trust Shanxi Aluminum Perpetual Bonds: The term of the financial instrument is an indefinite period, counting from the date on which the funds provided reach the account received by the issuer; unless otherwise specified or agreed by both parties, the issuer shall have the right to choose to repay the principal, unpaid interest and all other outstanding payments on any interest payment date after 8 years from the date of paying investment funds, but the investor should be notified in writing 90 days in advance, with the initial annual interest rate at 5.145%, which will remain unchanged for 8 interest-bearing years from the date of paying the investment funds. The interest rate is adjusted once on the first day of the 9th interest-bearing year from the date of granting investment funds. The adjusted interest rate is the interest rate used on the day before the adjustment day plus 200bps, and remains unchanged during the 9th to 11th interest-bearing years. Thereafter, the investment interest rate will be adjusted every three years, and each adjustment range will be 300bps; March 20, June 20, September 20, and December 20 are the interest payment dates each year. The current principal and interest payable shall be transferred to the special account for investment funds 10 working days before the payment date.

8.52.3 Changes in financial instruments such as preferred stocks and perpetual bonds issued

Financial Instruments issued	Balance as at January 1, 2020		Increase in 2020		Decrease in 2020		Balance as at December 31, 2020	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
Renewable Corporate Bonds in 2015	30,000,000	2,945,985,000.00				6,898.70	30,000,000	2,945,978,101.30
Renewable medium-term notes in 2015	65,000,000	6,435,000,000.00			65,000,000	6,435,000,000.00		
Renewable Corporate Bonds in 2016	40,000,000	3,988,000,000.00				6,886.79	40,000,000	3,987,993,113.21
Renewable Corporate Bonds in 2017	45,000,000	4,486,677,547.14				11,091.51	45,000,000	4,486,666,455.63
Perpetual Corporate Medium-term Bonds in 2018	60,000,000	5,991,891,509.43				8,489,788.42	60,000,000	5,983,401,721.01
Renewable Corporate Bonds in 2018	40,000,000	3,988,439,245.28				2,841,241.18	40,000,000	3,985,598,004.10
Shanghai Trust-Guizhou Jinyuan Perpetual Bonds Plan	50,000,000	5,000,000,000.00					50,000,000	5,000,000,000.00

Financial Instruments issued	Balance as at January 1, 2020		Increase in 2020		Decrease in 2020		Balance as at December 31, 2020	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
Lujiazui Trust SPIC Zhongwei New Energy Perpetual Bonds		4,000,000,000.00						4,000,000,000.00
Share 3020 of China Power Development with Non-voting Convertible to Preferred Stocks	3,020	3,597,775,558.20					3,020	3,597,775,558.20
Hong Kong Treasury Perpetual Bonds in 2018		3,431,600,000.00						3,431,600,000.00
Lujiazui Trust SPIC Zhongwei Thermal Power Perpetual Bonds		1,000,000,000.00						1,000,000,000.00
Hwabao Trust Perpetual Bonds of Huanghe		1,000,000,000.00				1,000,000,000.00		
SPIC Ronghe Leasing Perpetual Bonds in 2018	10,000,000	1,000,000,000.00			10,000,000	1,000,000,000.00		
Minmetals Trust Sichuan Perpetual Bonds		800,000,000.00						800,000,000.00

Financial Instruments issued	Balance as at January 1, 2020		Increase in 2020		Decrease in 2020		Balance as at December 31, 2020	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
Minmetals CITIC Trust Shanxi Aluminum Perpetual Bonds		500,000,000.00						500,000,000.00
Jinyuan Zhongshui Preferred Stocks in 2018	5,000,000	500,000,000.00					5,000,000	500,000,000.00
Shanghai International Trust Shanxi Aluminum Perpetual Bonds		301,000,000.00						301,000,000.00
Agricultural Bank Financial Perpetual Bonds of Huanghe		200,000,000.00				200,000,000.00		
Perpetual bonds in 2019	250,000,000	24,930,192,452.74				450,653.16	250,000,000	24,929,741,799.58
Perpetual debts of Shanghai Electric Power	21,000,000	3,200,000,000.00					21,000,000	3,200,000,000.00
Hwabao Trust Renewable Bonds of Huanghe		1,500,000,000.00						1,500,000,000.00

Financial Instruments issued	Balance as at January 1, 2020		Increase in 2020		Decrease in 2020		Balance as at December 31, 2020	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
SPIC International Energy Preferred Stocks in 2019		1,026,000,000.00						1,026,000,000.00
Guizhou Zhongshui Energy Preferred Stocks		470,000,000.00						470,000,000.00
Renewable Corporate Bonds in 2020			200,000,000	20,000,000,000.00		61,280,909.80	200,000,000	19,938,719,090.20
Renewable medium-term notes in 2020			469,000,000	43,900,000,000.00		12,061,320.77	469,000,000	43,887,938,679.23
China Power Perpetual Medium-term Notes			30,000,000.00	3,000,000,000.00			30,000,000	3,000,000,000.00
Perpetual bonds in Laxiwa infrastructure debt investment plan of Ping An Asset Management Co., Ltd.				700,000,000.00				700,000,000.00
Total		80,292,561,312.79		67,600,000,000.00		8,720,148,790.33		139,172,412,522.46

8.52.4 Information of equity instrument holders

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
1. Equity attributable to owners (or shareholders) of the parent company	110,146,036,964.26	52,766,185,754.59
(1) Equity attributable to owners of holding common shares of the parent company		
(2) Equity attributable to owners of holding other equity of the parent company	110,146,036,964.26	52,766,185,754.59
Including: net profit		
Total comprehensive income		
Dividends distributed in the current period	3,984,383,714.01	2,604,620,026.43
Accumulated undistributed dividends		
2. Equity attributable to minority shareholders	29,026,375,558.20	27,526,375,558.20
(1) Equity attributable to minority shareholders relating to common shares		
(2) Equity attributable to the owner holding other equities of minority shareholders	29,026,375,558.20	27,526,375,558.20

8.53 Lease liabilities

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Lease payment	5,375,066,147.12	5,703,871,725.29
Less: unrecognized the financing expenses	994,626,571.59	972,340,680.71
Part reclassified to the non-current liabilities maturing within one year	595,278,388.66	626,609,934.98
Net amount of lease liabilities	3,785,161,186.87	4,104,921,109.60

8.54 Long-term payables

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
Long-term payables	36,442,859,468.95	50,024,442,360.96	47,455,995,107.31	39,011,306,722.60
Special payables	3,005,615,581.59	1,207,516,197.69	1,217,988,293.41	2,995,143,485.87
Total	39,448,475,050.54	51,231,958,558.65	48,673,983,400.72	42,006,450,208.47

8.54.1 Long-term payables

Top 5 long-term payables in terms of ending balances:

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Finance lease payment of SPIC Guizhou Jinyuan Co., Ltd.	9,957,025,032.58	12,075,517,505.95
Finance lease payment of Shanghai Electric Power Co., Ltd.	9,675,834,460.24	7,418,009,966.07
Finance lease payment of National Nuclear Capital Holdings Limited	2,912,242,553.12	8,174,183,843.49
Finance lease payment of China Power International Holding Limited	1,902,380,233.77	263,408,965.56
Finance lease payment of SPIC Beijing Electric Power Co., Ltd.	1,241,600,902.65	1,243,358,785.17
Total	25,689,083,182.36	29,174,479,066.24

8.54.2 Special payables

Top 5 special payables in terms of ending balance:

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
Special funds for resolving production capacity	7,584,733.52	57,331,160.10	9,189,305.67	55,726,587.95
Treasury bonds technical reform funds	34,300,000.00			34,300,000.00
Policy appropriation relocation project funds for CPI Guangdong Company		26,686,035.49		26,686,035.49
Compensation for removal and relocation and allowances for purchasing houses	28,017,825.07		1,413,082.96	26,604,742.11
Development fee for entrustment	5,000,000.00			5,000,000.00
Total	74,902,558.59	84,017,195.59	10,602,388.63	148,317,365.55

8.55 Long-term employee compensation payable

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
I. Post-employment benefits - net liabilities of defined benefit plans				
II. Dismissal benefits	11,013,568.66	1,213,451.82	2,434,665.78	9,792,354.70
III. Other long-term benefits	1,668,368.45		782,465.79	885,902.66
Total	12,681,937.11	1,213,451.82	3,217,131.57	10,678,257.36

8.56 Estimated liabilities

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Disposal costs	241,581,740.18	234,300,077.71
External guarantee	66,844,954.12	52,892,227.63
Pending litigation	115,032,252.60	104,992,252.60
Product quality guarantee	26,364,973.41	102,113,427.57
Onerous contract to be performed	46,965,857.44	29,507,658.04
Others	62,292,628.98	4,161,796.77
Total	559,082,406.73	527,967,440.32

Remark: Please refer to Note 9 Contingencies for the details of the above-mentioned estimated liabilities.

8.57 Deferred income

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
Government grants	7,961,192,036.28	1,259,195,152.08	1,212,622,549.78	8,007,764,638.58
Others	2,586,306,381.05	352,481,053.58	361,781,880.74	2,577,005,553.89
Total	10,547,498,417.33	1,611,676,205.66	1,574,404,430.52	10,584,770,192.47

Items involving government grants:

Item	Balance as at January 1, 2020	New grants in 2020	Amount included in the current profit or loss in 2020	Amount returned in 2020	Other changes	Balance as at December 31, 2020	Reason for refund	Assets/income-related
CAP1400 technical research	2,311,338,014.22	236,710,054.73	202,545,748.75		150,728,400.00	2,194,773,920.20		Assets-related
Compensation for fairway construction	647,947,902.88		13,519,378.56			634,428,524.32		Assets-related
Yancheng Thermal Power Relocation Compensation	282,391,753.00	65,000,000.00	25,198,193.47			322,193,559.53		Assets-related
Nuclear power capacity improvement project	314,000,000.00					314,000,000.00		Assets-related
The 13th five-year project on the research and development of a digital instrument control system with enhanced information security by using domestic chips	234,641,888.94	33,909,300.00				268,551,188.94		Assets-related
Special subsidies for environmental protection	249,186,930.55	4,423,300.00	12,417,629.11		10,724,394.88	230,468,206.56		Income-related
CAP1000 technical research	224,248,250.15	13,729,000.00	24,894,900.32			213,082,349.83		Assets-related

Item	Balance as at January 1, 2020	New grants in 2020	Amount included in the current profit or loss in 2020	Amount returned in 2020	Other changes	Balance as at December 31, 2020	Reason for refund	Assets/income-related
Development of nuclear power pumps, valves and measuring instruments	150,828,574.20		21,574,689.96			129,253,884.24		Assets-related
Nuclear island key components automatic detection and maintenance equipment and technology research and development platform	136,409,313.00		10,819,393.92			125,589,919.08		Assets-related
Nuclear safety related equipment identification and material evaluation test platform	126,383,104.19		11,960,349.72			114,422,754.47		Assets-related
PCS subject assets	120,145,720.38		12,679,023.24			107,466,697.14		Assets-related
Compensation for land	98,418,675.79		1,876,260.22		1,514,750.04	95,027,665.53		Income-related
ACME subject assets	86,326,652.90		9,116,405.76			77,210,247.14		Assets-related
Amortization of refund of land-transferring fees from Zaqi Government	78,297,977.14		1,940,255.88			76,357,721.26		Income-related
Financial appropriation for one-pipe to one-household	81,028,687.72		8,680,323.95			72,348,363.77		Assets-related

Item	Balance as at January 1, 2020	New grants in 2020	Amount included in the current profit or loss in 2020	Amount returned in 2020	Other changes	Balance as at December 31, 2020	Reason for refund	Assets/income-related
Lanzhou heat pipe network construction fees	51,457,380.75	23,644,940.44	2,920,207.50			72,182,113.69		Assets-related
Financial appropriation for clean energy gas to water	69,349,999.96		3,650,000.04			65,699,999.92		Assets-related
Advanced Manufacturing Industry Enterprise Development Fund in Wuhan Economic and Technological Development Zone		65,700,000.00	592,526.66			65,107,473.34		Assets-related
Rewards and subsidies for denitrification and desulfurization construction	63,633,069.30		4,870,027.72			58,763,041.58		Assets-related
Independent technology research and development project of nuclear power key design software	65,643,437.65		10,502,949.96			55,140,487.69		Assets-related
Booster station access fee income and taxes	43,838,288.87	191,450.40	3,500,000.00			40,529,739.27		Assets-related
Anti-epidemic Special Treasury Bond Project		39,430,000.00				39,430,000.00		Assets-related

Item	Balance as at January 1, 2020	New grants in 2020	Amount included in the current profit or loss in 2020	Amount returned in 2020	Other changes	Balance as at December 31, 2020	Reason for refund	Assets/income-related
Ecological civilization construction subsidy from the central budget		28,962,036.15				28,962,036.15		Income-related
IVR subject assets	29,454,194.66		3,108,533.16			26,345,661.50		Assets-related
Funds for energy saving and emission reduction		24,110,000.00				24,110,000.00		Assets-related
Subsidies for reconstruction of 1# dedusting system of Shanghai Waigaoqiao Power Plant	25,170,000.33		1,960,000.00			23,210,000.33		Assets-related
Investment Subsidies for Shangqiu Environmental Protection Project from Central Budget		20,000,000.00				20,000,000.00		Income-related
Reactor core project assets	21,479,404.77		1,825,749.41			19,653,655.36		Assets-related
Compensation for the resettlement of migrants from Three Gorges area	23,305,364.35		3,946,970.42			19,358,393.93		Assets-related

Item	Balance as at January 1, 2020	New grants in 2020	Amount included in the current profit or loss in 2020	Amount returned in 2020	Other changes	Balance as at December 31, 2020	Reason for refund	Assets/income-related
Special fund for the revitalization of clean and efficient power industry		18,323,751.28				18,323,751.28		Assets-related
Flexible transformation of clean heating	25,825,331.00		8,992,004.00			16,833,327.00		Assets-related
Update and addition of facilities and equipment of the talent college in 2019	17,388,422.43		915,120.74			16,473,301.69		Assets-related
Qinghai Provincial Photovoltaic Industry Technology Center		20,000,000.00	5,565,047.42			14,434,952.58		Assets-related
Refund of urban supporting fees		13,351,922.90				13,351,922.90		Assets-related
Coal-to-gas construction funds for heating branch	14,000,000.20		999,999.96			13,000,000.24		Assets-related
Government funds for technical transformation of Fangzhu Power Station	13,204,855.17		880,323.68			12,324,531.49		Assets-related

Item	Balance as at January 1, 2020	New grants in 2020	Amount included in the current profit or loss in 2020	Amount returned in 2020	Other changes	Balance as at December 31, 2020	Reason for refund	Assets/income-related
Special funds for technical transformation of combining cooling water in place with chimney tower	12,300,000.00		820,000.00			11,480,000.00		Assets-related
Update and addition of DX20-SSSB facilities and equipment		12,546,000.00	1,291,925.00			11,254,075.00		Assets-related
Central and provincial air pollution prevention and environmental protection guiding funds from Jiawang District Finance Bureau	12,895,525.76		1,674,440.91			11,221,084.85		Assets-related
Subsidy funds for the 2019 electrolytic aluminum output increment plan	14,250,000.00		3,214,285.71			11,035,714.29		Assets-related
Subsidy for shutdown of Yuhua Branch Power Plant	11,723,783.29		821,450.04			10,902,333.25		Assets-related
Construction fee of municipal finance coal-fired alternative pipe network	11,533,333.11		800,000.04			10,733,333.07		Assets-related

Item	Balance as at January 1, 2020	New grants in 2020	Amount included in the current profit or loss in 2020	Amount returned in 2020	Other changes	Balance as at December 31, 2020	Reason for refund	Assets/income-related
Special fund for energy saving and emission reduction of Baicheng Power Generation Company	11,158,599.99		748,299.98			10,410,300.01		Assets-related
Research and development of severe accident process simulation and emergency decision support system	10,777,540.14		1,251,486.80			9,526,053.34		Assets-related
2018 Update and addition of facilities and equipment of the talent college	11,032,967.11		1,741,195.36			9,291,771.75		Assets-related
2018 Special Fund for Low-Cost Renovation of Industrial Parks from the Department of Finance of the Ningxia Hui Autonomous Region	3,709,066.40	6,000,000.00	556,867.14			9,152,199.26		Assets-related
Special funds for industrial transformation and upgrading		17,450,000.00	8,840,400.00			8,609,600.00		Assets-related

Item	Balance as at January 1, 2020	New grants in 2020	Amount included in the current profit or loss in 2020	Amount returned in 2020	Other changes	Balance as at December 31, 2020	Reason for refund	Assets/income-related
Time-limit-free theoretical analysis and parameter optimization research	8,575,276.49		11,329.10			8,563,947.39		Assets-related
Project funds for Shimenkan technological transformation for enhancing efficiency and capacity expansion	8,460,000.00					8,460,000.00		Assets-related
Update and addition of DX17-SSSB facilities and equipment	10,162,453.94		1,952,266.30			8,210,187.64		Assets-related
Transformation of No. 1 and No. 2 desulfurization systems	9,000,000.00		900,000.00			8,100,000.00		Income-related
Slicing project	8,775,000.00		780,000.00			7,995,000.00		Assets-related
School security engineering	8,784,664.10		868,300.80			7,916,363.30		Assets-related
Special subsidy from Huanggang Dabie Mountain Government	7,710,000.00					7,710,000.00		Income-related
Reconstruction of laboratory building and equipment	8,290,798.66		636,163.23			7,654,635.43		Assets-related

Item	Balance as at January 1, 2020	New grants in 2020	Amount included in the current profit or loss in 2020	Amount returned in 2020	Other changes	Balance as at December 31, 2020	Reason for refund	Assets/income-related
Gym maintenance works	7,660,500.00		70,500.00			7,590,000.00		Assets-related
Fund appropriation to highly-skilled talents training base	9,454,017.71		1,953,920.40			7,500,097.31		Assets-related
Water Pipeline Network Project	7,520,800.00		475,008.00			7,045,792.00		Assets-related
New cathode energy-saving renovation funds for electrolytic cell	7,518,928.03	600,000.00	1,490,307.57			6,628,620.46		Assets-related
Government Grants for West Line Pipeline Network		6,970,000.00	348,500.00			6,621,500.00		Assets-related
Subsidies for photovoltaic power station construction projects	4,303,506.99	2,304,414.98	296,104.57			6,311,817.40		Assets-related
Reconstruction of the dust removal and fire protection system for the production on the ground	6,528,000.00		408,000.00			6,120,000.00		Income-related
Power school open and training project	8,742,035.68		2,672,044.59			6,069,991.09		Assets-related
Alumina project equipment investment subsidy	6,000,000.00					6,000,000.00		Assets-related

Item	Balance as at January 1, 2020	New grants in 2020	Amount included in the current profit or loss in 2020	Amount returned in 2020	Other changes	Balance as at December 31, 2020	Reason for refund	Assets/income-related
Subsidies for flue gas desulfurization renovation	6,599,000.00		607,000.00			5,992,000.00		Income-related
Subsidy for exhaust emission control in 2020		6,020,000.00	212,522.24			5,807,477.76		Assets-related
No. 5 unit gas denitrification renovation	5,949,999.80		425,000.04			5,524,999.76		Income-related
Library maintenance works	5,496,500.00		56,160.00			5,440,340.00		Assets-related
Level-1 iron furnace and Hekou Hydropower Station hydroelectric generating unit and auxiliary equipment in Qianshan County	5,883,401.22		653,711.25			5,229,689.97		Assets-related
Major scientific and technological project on Research on the Key Technologies of the Industrial Chain of New High-efficiency Batteries in Qinghai	11,102,157.84	2,070,000.00	8,041,432.12			5,130,725.72		Assets-related

Item	Balance as at January 1, 2020	New grants in 2020	Amount included in the current profit or loss in 2020	Amount returned in 2020	Other changes	Balance as at December 31, 2020	Reason for refund	Assets/income-related
Province								
Nuclear power supplement and improvement project	16,927,811.30			16,927,811.30			Refunds of balance funds	Assets-related
Other small subsidies	2,077,023,174.22	597,748,981.20	348,676,826.69		227,979,732.15	2,098,115,596.58		
Total	7,961,192,036.28	1,259,195,152.08	804,747,461.41	16,927,811.30	390,947,277.07	8,007,764,638.58		

8.58 Other non-current liabilities

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Interest rate swap	42,642,813.00	65,271,310.76
Energy swap	332,230,271.35	25,434,948.30
Poverty alleviation commitment	361,730,142.81	312,275,477.61
Output tax to be carried forward	4,801,073.59	1,006,794,824.91
Liabilities of technical transformation expenditure	906,499,049.30	1,366,233,034.38
Pipeline connection fees, etc.	185,806,935.48	147,813,550.27
Maintenance fee for transfer of subsidy receivable	37,525,000.00	
Others	1,769,097,445.37	1,043,678,412.23
Total	3,640,332,730.90	3,967,501,558.46

8.59 Paid-in capital

Name of investor	Balance as at January 1, 2020		Increase in 2020	Decrease in 2020	Balance as at December 31, 2020	
	Investment amount	Proportion (%)			Investment amount	Proportion (%)
Total	35,000,000,000.00	100.00			35,000,000,000.00	100.00
State-owned Assets Supervision and Administration Commission of the State Council	35,000,000,000.00	100.00			35,000,000,000.00	100.00

8.60 Other equity instruments

Financial Instruments issued	As at January 1, 2020		Increase in 2020		Decrease in 2020		As at December 31, 2020	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
20 SPIC Y3			20,000,000	2,000,000,000.00		5,846,280.33	20,000,000	1,994,153,719.67
20 SPIC MTN013 (Perpetual Medium-term Notes)			20,000,000	2,000,000,000.00		222,641.51	20,000,000	1,999,777,358.49
20 SPIC MTN012			20,000,000	2,000,000,000.00		1,637,735.85	20,000,000	1,998,362,264.15
20 SPIC MTN011			20,000,000	2,000,000,000.00		2,335,849.06	20,000,000	1,997,664,150.94
20 Perpetual Medium-term Notes (20 SPIC MTN026)			23,000,000	2,300,000,000.00			23,000,000	2,300,000,000.00
20 Perpetual Medium-term Notes (20 SPIC MTN025)			25,000,000	2,500,000,000.00			25,000,000	2,500,000,000.00
20 Perpetual Medium-term Notes (20 SPIC MTN024)			25,000,000	2,500,000,000.00			25,000,000	2,500,000,000.00
20 Perpetual Medium-term Notes (20 SPIC MTN023)			22,000,000	2,200,000,000.00			22,000,000	2,200,000,000.00

Financial Instruments issued	As at January 1, 2020		Increase in 2020		Decrease in 2020		As at December 31, 2020	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
20 Perpetual Medium-term Notes (20 SPIC MTN022)			24,000,000	2,400,000,000.00		2,674,528.30	24,000,000	2,397,325,471.70
20 Perpetual Medium-term Notes (20 SPIC MTN021)			19,000,000	1,900,000,000.00		3,655,660.38	19,000,000	1,896,344,339.62
20 Perpetual Medium-term Notes (20 SPIC MTN020)			20,000,000	2,000,000,000.00		70,754.72	20,000,000	1,999,929,245.28
20 Perpetual Medium-term Notes (20 SPIC MTN019)			20,000,000	2,000,000,000.00		70,754.72	20,000,000	1,999,929,245.28
20 Perpetual Medium-term Notes (20 SPIC MTN018)			20,000,000	2,000,000,000.00		2,264,150.94	20,000,000	1,997,735,849.06
20 Perpetual Medium-term Notes (20 SPIC MTN017)			23,000,000	2,300,000,000.00		70,754.72	23,000,000	2,299,929,245.28

Financial Instruments issued	As at January 1, 2020		Increase in 2020		Decrease in 2020		As at December 31, 2020	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
20 Perpetual Medium-term Notes (20 SPIC MTN016)			15,000,000	1,500,000,000.00		1,698,113.21	15,000,000	1,498,301,886.79
20 Perpetual Medium-term Notes (20 SPIC MTN015)			18,000,000	1,800,000,000.00		70,754.72	18,000,000	1,799,929,245.28
20 Perpetual Medium-term Notes (20 SPIC MTN014)			20,000,000	2,000,000,000.00		1,485,849.06	20,000,000	1,998,514,150.94
Phase-1 Perpetual bonds in 2020			20,000,000	2,000,000,000.00		5,875,525.61	20,000,000	1,994,124,474.39
Phase-5 Perpetual Medium-term Notes in 2020			23,000,000	2,300,000,000.00		1,330,330.19	23,000,000	2,298,669,669.81
Phase-5 Perpetual bonds in 2020 (Y5)			20,000,000	2,000,000,000.00		5,851,132.09	20,000,000	1,994,148,867.91
Phase-4 Perpetual Medium-term Notes in 2020			23,000,000	2,300,000,000.00		2,665,707.55	23,000,000	2,297,334,292.45

Financial Instruments issued	As at January 1, 2020		Increase in 2020		Decrease in 2020		As at December 31, 2020	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
Phase-4 Perpetual bonds in 2020 (Y4)			20,000,000	2,000,000,000.00		3,020,943.40	20,000,000	1,996,979,056.60
Phase-10 Renewable Corporate Bonds in 2020			20,000,000	2,000,000,000.00		5,731,132.08	20,000,000	1,994,268,867.92
Phase-3 Perpetual Medium-term Notes in 2020			22,000,000	2,200,000,000.00		4,388,773.59	22,000,000	2,195,611,226.41
Phase-7 Perpetual bonds in 2020			20,000,000	2,000,000,000.00		5,731,132.08	20,000,000	1,994,268,867.92
Phase-6 Perpetual bonds in 2020 (Y6)			20,000,000	2,000,000,000.00		2,900,943.40	20,000,000	1,997,099,056.60

Financial Instruments issued	As at January 1, 2020		Increase in 2020		Decrease in 2020		As at December 31, 2020	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
Phase-9 Perpetual Medium-term Notes in 2020 (20 SPIC MTN009)			20,000,000	2,000,000,000.00		1,779,245.30	20,000,000	1,998,220,754.70
Phase-9 Perpetual bonds in 2020 (20 SPIC Y9)			20,000,000	2,000,000,000.00		2,900,943.40	20,000,000	1,997,099,056.60
Phase-2 Perpetual bonds in 2020			20,000,000	2,000,000,000.00		5,841,792.46	20,000,000	1,994,158,207.54
Phase-8 Perpetual Medium-term Notes in 2020 (20 SPIC MTN008)			17,000,000	1,700,000,000.00		199,858.49	17,000,000	1,699,800,141.51
Phase-8 Perpetual bonds in 2020			20,000,000	2,000,000,000.00		3,020,943.41	20,000,000	1,996,979,056.59
Phase-1 Perpetual bonds in 2019	20,000,000	1,994,132,075.47				2,065.39	20,000,000	1,994,130,010.08

Financial Instruments issued	As at January 1, 2020		Increase in 2020		Decrease in 2020		As at December 31, 2020	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
Phase-5 Perpetual bonds in 2019	20,000,000	1,994,155,660.37				3,352.50	20,000,000	1,994,152,307.87
Phase-4 Perpetual bonds in 2019	20,000,000	1,994,148,867.91				1,437.00	20,000,000	1,994,147,430.91
Phase-11 Perpetual bonds in 2019	20,000,000	1,994,268,867.91				121,632.45	20,000,000	1,994,147,235.46
Phase-13 Perpetual bonds in 2019	10,000,000	999,929,245.28				62,047.92	10,000,000	999,867,197.36
Phase-10 Perpetual bonds in 2019	20,000,000	1,994,168,867.92				5,304.19	20,000,000	1,994,163,563.73
Phase-12 Perpetual bonds in 2019	20,000,000	1,994,168,867.92				5,595.00	20,000,000	1,994,163,272.92
Phase-3 Perpetual bonds in 2019	20,000,000	1,994,268,867.92				116,273.55	20,000,000	1,994,152,594.37
Phase-7 Perpetual bonds in 2019	20,000,000	1,994,268,867.91				117,789.33	20,000,000	1,994,151,078.58

Financial Instruments issued	As at January 1, 2020		Increase in 2020		Decrease in 2020		As at December 31, 2020	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
Phase-6 Perpetual bonds in 2019	20,000,000	1,994,128,867.92				1,210.00	20,000,000	1,994,127,657.92
Phase-9 Perpetual bonds in 2019	20,000,000	1,994,268,867.92				6,910.23	20,000,000	1,994,261,957.69
Phase-2 Perpetual bonds in 2019	20,000,000	1,994,128,867.92				2,011.50	20,000,000	1,994,126,856.42
Phase-8 Perpetual bonds in 2019	20,000,000	1,994,155,660.37				5,024.10	20,000,000	1,994,150,636.27
Phase-1 Perpetual Medium-term Notes in 2018	30,000,000	2,997,877,358.49				5,659,985.49	30,000,000	2,992,217,373.00
Phase-1 Perpetual bonds in 2018	25,000,000	2,492,774,528.30				6,875.00	25,000,000	2,492,767,653.30
Phase-2 Perpetual Medium-term Notes in 2018	30,000,000	2,994,014,150.94				2,829,802.93	30,000,000	2,991,184,348.01

Financial Instruments issued	As at January 1, 2020		Increase in 2020		Decrease in 2020		As at December 31, 2020	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
Phase-2 Perpetual bonds in 2018	20,000,000	1,495,664,716.98				2,834,366.18	20,000,000	1,492,830,350.80
Phase-1 Perpetual bonds in 2017	20,000,000	1,495,536,037.72				3,825.00	20,000,000	1,495,532,212.72
Phase-3 Perpetual bonds in 2017	20,000,000	1,495,570,754.71				3,629.72	20,000,000	1,495,567,124.99
Phase-2 Perpetual bonds in 2017	20,000,000	1,495,570,754.71				3,636.79	20,000,000	1,495,567,117.92
Perpetual corporate bonds in 2016	40,000,000	3,988,000,000.00				6,886.79	40,000,000	3,987,993,113.21
2015 SPIC Renewable Bonds RMB 3 billion	30,000,000	2,945,985,000.00				6,898.70	30,000,000	2,945,978,101.30
2015 SPIC MTN001 Phase 1 (RMB 4 billion)	40,000,000	3,960,000,000.00			40,000,000	3,960,000,000.00		
2015 SPIC 15 SPIC MTN003	25,000,000	2,475,000,000.00			25,000,000	2,475,000,000.00		

Financial Instruments issued	As at January 1, 2020		Increase in 2020		Decrease in 2020		As at December 31, 2020	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
Total	550,000,000	52,766,185,755	639,000,000	63,900,000,000	65,000,000	6,520,148,790	1,124,000,000	110,146,036,964

8.61 Capital reserves

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
I. Capital (or share capital) premium	12,213,689,449.76	2,942,611,084.22	1,126,895,499.10	14,029,405,034.88
II. Other capital reserves	5,360,400,601.55	23,886,487.35	264,835,570.57	5,119,451,518.33
Total	17,574,090,051.31	2,966,497,571.57	1,391,731,069.67	19,148,856,553.21
Including: capital reserves exclusively owned by the State				

Remark 1: The capital premiums increased by RMB 2,942,611,084.22 in 2020.

(1) The capital reserves increased by RMB 690,747,313.47 due to the introduction of strategic investor by the subsidiary of the Company; among which, RMB 573,372,043.91 was influenced by State Power Investment Corporation Beijing Co., Ltd.; RMB 117,375,269.56 was influenced by SPIC Hydrogen Energy Technology Development Co., Ltd.

(2) Due to the acquisition of minority equity subsidiaries of the Company, the capital reserves increased by RMB 2,045,988,708.20. Among which, RMB 1,098,596,147.19 was affected by the acquisition of 35.7% minority equity in Inner Mongolia HMHJ Aluminum Electricity Co., Ltd., a third-tier holding subsidiary of Mengdong Company by Inner Mongolia Energy Company at a discount this year; RMB 566,202,623.93 was affected by the acquisition of minority equity in China Power by Hong Kong Treasury through the secondary market; RMB 344,820,617.71 was affected by the acquisition of minority equity in HMHJ through Ronghe No. 7 by Capital Holding at a discount; RMB 36,369,319.37 in total was affected by the acquisition of minority equity by other subsidiaries.

(3) Due to the introduction of strategic investors, equity acquisition and gratuitous transfer by other subordinated units including China Power International, Shanghai Electric Power, State Nuclear Power, Fund and Jilin Energy Investment, the capital reserves increased by RMB 205,875,062.55. Among which, RMB 118,117,048.01 of capital reserves was affected by the introduction of strategic capital by Shanghai Electric Power; RMB 52,703,024.80 of capital reserves was affected by the introduction of a new shareholder Shenzhen Xin Grain Investment Management Co., Ltd. by National Nuclear Electronics Corporation Energy Engineering Company; Baishan Thermal Power Co., Ltd., a subsidiary of Jilin Energy Investment, was transferred to Baishan State-owned Energy Investment Co., Ltd. for free, with a net asset of RMB -24,125,493.21. A supplementary payment was made for RMB 8,035,536.41 of deed tax of Baishan assets reorganized from Jilin Electric Power Co., Ltd. into Jilin Energy Investment for the previous year. The difference was RMB 16,089,956.80. The capital reserves increased.

Remark 2: The capital premium decrease by RMB 1,126,895,499.10;

(1) Due to the acquisition of minority equity subsidiaries of the Company, the capital reserves decreased by RMB 880,800,711.00. Among which, RMB 420,872,185.35 was affected by the acquisition of minority equity of Changzhou Hydropower Company by Guangxi Overseas Investment Corporation; as CLP Huolinhe Coal and Electricity Group Aluminum Company, a subsidiary of Mengdong Energy Company, cancelled, and Mengdong Energy acquired 23.11% of its minority equity and indirectly recovered 10% of the minority equity of Shengfa Power held by Huolinhe Aluminum, RMB 173,897,996.25 was affected; as the SPIC's headquarters purchased a minority equity in China Import and Export Corporation, a small shareholder of State Nuclear Power with a premium, RMB 113,725,880.30 was affected; RMB 70,478,142.75 was affected by the purchase of the minority equity in Shanghai Electric Power through the secondary market by SPIC Headquarters; RMB 50,976,308.83 was affected by the acquisition of minority equity of Yunnan Hydropower Development held by RHDT No. 2 by Yunnan International Company; RMB 43,377,973.82 was affected by the acquisition of minority equity of Wuling Power by China Power International Development Limited; a total of RMB 7,472,223.70 was affected by other subsidiaries' acquisition of minority equity.

(2) Due to the capital increase, introduction of strategic investors, exit of minority shareholders, and disposal of subsidiaries by other subsidiaries of the Company, such as China Power International Development Limited, Shanghai Electric Power, State Nuclear Power, Guangxi Overseas, etc., capital reserves decreased by RMB 246,094,788.10. Among which, as the minority shareholders of Guizhou Qiandong, a subsidiary of China Power International Development Limited, have not yet completed their capital contribution. China Power International Development Limited reduced the capital reserve by RMB 120,000,000.00 based on the shareholding ratio; as small shareholders of State Nuclear Power Automation System, a subsidiary of State Nuclear Power, and Fuel Company, a subsidiary of Northeast Electric Power withdrew shares, and capital reserves of RMB 91,233,037.53 were affected.

Remark 3: other capital reserves increased by RMB 23,886,487.35. Among which: as the actual dividend ratios of Pingwei No. 1 Power and Pingwei No. 2 Power, subsidiaries of China Power International Development Limited, the Company's subsidiary, are inconsistent with the equity ratio, the capital reserves increased by RMB 13,295,788.10; as the changes in equity in 2020 of Qinghai Energy Development Co., Ltd., an associate of Huanghe Company were accounted for under the equity method, the capital reserves increased by RMB 5,117,305.06; as the changes in equity in 2020 of the associates were accounted for by State Nuclear Power under equity method, the capital reserves increased by RMB 4,792,421.49; as Salt Lake Salt, a subsidiary of Xinjiang Company, sold the investment properties in the development zone, and the fair value of the remaining amortization amount before the transfer of RMB 1.0023 million was transferred to the capital reserve, the capital reserves increased by RMB 680,972.70.

Remark 4: other capital reserves decreased by RMB 264,835,570.57. Among which, due to the changes in other equity of logistics company, the subsidiary of the Company, Guizhou Railway Investment Company, the associate of Huolinhe Opencut Coal Industry as well as Tiejin Transportation Company in 2020, the capital reserves decrease by RMB 210,305,118.00; Mengdong Energy Company paid RMB 171,642,081.02 to its holding subsidiary Opencut Coal Industry due to the commitment of compensation for equity sales this year, and the capital reserve decreased by RMB 46,423,175.44; affected by other items of the subsidiaries of the Company, the capital reserves decrease by RMB 8,107,277.13.

8.62 Special reserves

Item	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020	Remark
Work safety expenses	104,087,944.34	465,447,935.33	441,908,173.74	127,627,705.93	
Renovation costs	64,696,475.67	406,714,632.10	438,045,568.35	33,365,539.42	
Others	11,475,343.34	6,370,133.49	6,370,133.49	11,475,343.34	
Total	180,259,763.35	878,532,700.92	886,323,875.58	172,468,588.69	

Remark: The special reserve increased by RMB 1,503,870,319.87 this year, including the part attributable to the equity of the parent company's owners increasing by RMB 878,532,700.92 and the part attributable to minority equity increasing by RMB 625,337,618.95, which were withdrawn in the current year; the special reserve decreased by RMB 1,528,619,504.65, including the part attributable to the equity of the parent company's owners decreasing by RMB 886,323,875.58 and the part attributable to minority equity decreasing by RMB 642,295,629.07, which were used in the current year.

8.63 Undistributed profits

Item	Year 2020	Year 2019
Beginning balance of the current period	2,879,683,025.90	4,588,720,317.64
Increase in the current period	2,372,704,112.81	1,326,610,021.81
Including: net profit transfer-in in the current period	2,371,908,626.88	1,251,049,572.01
Other adjustment factors	795,485.93	75,560,449.80
Amount decreased in the current period	4,826,363,857.97	3,035,647,313.55
Including: withdrawal of surplus reserves in the current period		
General risk reserves withdrawn in the current period		
Cash dividends distributed in the current period	209,402,400.00	257,304,200.00
Amount transferred to paid-in capital		
Other decreases	4,616,961,457.97	2,778,343,113.55
Ending balance	426,023,280.74	2,879,683,025.90

Remark 1: The balance of undistributed profits at the end of the last year was RMB 3,170,854,915.70 and the balance at the beginning of the current year decreased by RMB 291,171,889.80. The reason for changes are changes in accounting policies and the correction of errors in prior periods. See Note 5 Notes to adjustments for changes in accounting policies and accounting estimates, the correction of errors and other adjustments for details of changes.

Remark 2: The amount in 2020 increased by RMB 2,372,704,112.81; among which, the net profit transferred in was RMB 2,371,908,626.88; the amount of increase due to other factors was RMB 795,485.93, mainly for that facts: transfer of other equity instruments held by the Company's subsidiary SPIC Financial Co., Ltd. in the current period. The changes in fair value that were originally included in other comprehensive income were directly transferred to the undistributed profit. The undistributed profit of the Company increased by RMB 795,485.93 based on the shareholding ratio.

Remark 3: The amount decreased in 2020 was RMB 4,826,363,857.97. Among which, the Company paid a dividend of RMB 209,402,400.00 to the SASAC; RMB 3,984,383,714.01 of interests on perpetual bonds was distributed; the decrease caused by other factors was RMB 632,577,743.96, mainly for: units subordinate to the subsidiaries of the Company SPIC Inner Mongolia Energy Co., Ltd., China Power International Holding Limited and SPIC Jiangxi Electric Power Co., Ltd. occurred the "three supply and one industry" resulting in a decrease in undistributed profit by RMB 136,058,322.90; due to the acquisition of the minority equity of RHDT No. 2 Fund in Yunnan Hydropower Development by SPIC Yunnan International Power Investment Co., Ltd., the undistributed profits decreased by RMB 113,880,386.47; as the Company’s subsidiaries, Guizhou Nengfa Electric Power Fuel Company and West Electric Power Company, acquired minority equity of the subsidiaries including Guizhou Qianxi Guijing Coal Development, Jinhe Smelt Company, and Fenggang County Lianxing Hydropower Company at the consideration of 0, and assumed the excess losses borne by the original minority shareholders, the undistributed profits decreased by RMB 106,972,297.95; due to the acquisition of minority equity by Wuling Power Co., Ltd. subordinate to China Power International Holding Limited, the undistributed profits decreased by RMB 81,734,382.85; as National Nuclear Capital Holdings Limited disposed of the subsidiary's National Nuclear Factoring Equity to RHZL, and National Nuclear Capital merged National Nuclear Factoring at the end of the year, the undistributed profits decreased by RMB 40,500,160.18 according to the share ratio; as the netting processing of current accounts of plant office collective restructuring of SPIC Northeast Electric Power Co., Ltd. for offsetting equity, the undistributed profits decreased by RMB 29,585,662.92; the decrease affected by other small factors amounted to RMB 123,846,530.69.

8.64 Operating revenue and operating costs

Item	Year 2020		Year 2019	
	Revenue	Cost	Revenue	Cost
1. Sub-total of primary business	272,010,269,035.00	209,257,573,185.82	267,072,255,124.64	210,433,285,224.92
Electric power	183,626,157,213.86	130,832,378,291.13	176,697,130,857.35	129,183,139,376.05
Heating power	6,758,490,169.68	7,847,404,028.15	7,298,523,102.89	8,305,130,004.48
Coal	6,176,971,998.50	3,769,708,198.74	5,407,257,454.61	3,712,268,055.89
Aluminum	54,014,262,876.79	51,213,904,894.41	57,069,780,852.41	53,427,679,306.92
Others	21,434,386,776.17	15,594,177,773.39	20,599,562,857.38	15,805,068,481.58
2. Sub-total of other businesses	6,055,775,851.44	3,053,557,562.68	5,167,667,510.95	2,858,144,996.46
Sales of materials	812,658,997.98	770,729,459.72	297,799,090.98	223,476,973.99
Transport business	41,625,350.70	37,078,227.63	39,129,744.00	48,627,253.56

Item	Year 2020		Year 2019	
	Revenue	Cost	Revenue	Cost
Processing and repair business	7,762,216.94	35,935,317.92	31,973,559.79	47,292,585.82
Lease of fixed assets	447,911,820.18	93,087,375.50	286,567,708.92	127,554,489.47
Commissioned operating by power generation	188,906,686.40	97,178,108.46	299,191,686.26	97,043,481.86
Staff training	7,849,907.59	13,455,063.54	102,728,705.67	127,235,263.96
Transfer of power	502,417,958.28	156,908,238.63	667,844,531.24	138,167,071.86
Revenue from garbage removal subsidy	181,175,406.75	427,181.73	122,771,193.84	1,062,462.06
Others	4,027,212,789.68	1,848,758,589.55	3,319,661,290.25	2,047,685,413.88
Total	278,227,790,169.50	212,311,130,748.50	272,239,922,635.59	213,291,430,221.38

Top 9 revenue recognized in 2020 from the construction contracts:

Contract item	Total contract amount	Total contract cost	Percentage of completion (%)	Contract revenue accumulatively recognized	Contract costs accumulatively recognized	Accumulatively recognized gross profit ("-" for loss)	Payment settled	Amount received accumulatively	Contract revenue recognized in 2020	Contract costs recognized in 2020
I. Fixed-price contract										
1. Sanmen Nuclear Power Phase I	10,217,477,052.75	10,143,501,067.72	100.00	10,217,477,052.75	10,143,501,067.72	73,975,985.03	10,217,477,052.75	11,711,074,151.86	1,045,416,256.07	1,665,646,398.63
2. New energy project - Weichuan Phase-II Project	592,344,427.72	504,442,700.00	80.00	441,573,600.00	425,101,800.00	16,471,800.00	445,639,300.00	445,639,300.00	432,763,559.59	425,498,939.46
3. Power generation project - General Contracting Project of Shaanxi Deyuan Fugu Power Plant Phase II 2×660MW Expansion Project	945,471,449.73	967,180,293.14	99.00	936,611,920.92	958,236,656.37	-21,624,735.45	991,473,597.91	991,473,597.91	404,931,464.41	413,053,557.95
4. Power generation project - Luxi Project	1,863,486,238.53	1,708,179,537.65	22.00	414,879,491.08	380,302,597.68	34,576,893.40	620,424,539.91	620,424,539.91	348,790,562.02	319,983,645.74
5. New energy project - Heze Shanxian County Wind Power Project	415,760,000.00	350,093,900.00	90.00	334,642,100.00	331,655,200.00	2,986,900.00	329,813,400.00	329,813,400.00	327,922,929.17	324,996,607.24
6. Power generation project - Inner Mongolia Shenglu Power Plant Phase I 2×1000MW Ultra Supercritical Air-cooled Unit Power Generation Project (Shanghai Temple)	1,646,389,824.24	1,564,358,795.98	89.00	1,460,829,166.30	1,388,043,658.97	72,785,507.33	1,533,105,128.14	1,533,105,128.14	281,502,232.66	233,759,195.06

Contract item	Total contract amount	Total contract cost	Percentage of completion (%)	Contract revenue accumulatively recognized	Contract costs accumulatively recognized	Accumulatively recognized gross profit ("-" for loss)	Payment settled	Amount received accumulatively	Contract revenue recognized in 2020	Contract costs recognized in 2020
7. Power generation project - Liaocheng Xiangguang Project	2,000,265,196.06	1,867,677,174.62	6.00	121,236,319.03	113,200,142.78	8,036,176.25	64,567,591.62	64,567,591.62	121,236,319.03	113,200,142.78
8. New Construction Project of Shenhua Guohua Indonesia Nansu No. 1 2×350MW Coal-fired Power Generation	1,334,651,023.64	1,292,086,363.64	19.77	180,144,195.62	170,343,389.09	9,800,806.53	45,038,280.02	44,960,462.80	83,684,635.00	85,072,061.09
9. Changjiang Small Pile CV Steel Containment	79,150,000.00	61,181,808.00	56.45	39,541,378.76	34,538,354.25	5,003,024.51	35,022,123.92	39,575,000.00	39,541,378.76	34,538,354.25

8.65 Selling and distribution expenses, general and administrative expenses, research and development costs and financial expenses

8.65.1 Selling and distribution expenses

Item	Year 2020	Year 2019
Employee compensation	256,564,300.92	208,483,376.61
Transportation costs	186,369,337.63	173,971,987.17
Sales and service fees	130,734,810.94	55,687,476.11
Travel expenses	22,309,869.50	45,294,572.39
Depreciation expenses	20,297,231.02	37,157,500.33
Packing expenses	34,931,048.96	26,314,271.47
Rental fees	13,084,821.66	22,023,050.50
Repair expenses	14,264,944.11	14,299,223.39
Advertising and promotion expenses	3,652,759.04	13,450,021.95
Entertainment expenses	15,328,428.82	13,384,998.40
Handling expenses	10,374,109.74	13,165,143.46
Office expenses	13,296,448.72	10,465,325.88
Materials and low-value consumables	3,346,110.06	7,135,043.94
Business expenses	3,833,655.99	4,861,639.66
Conference expenses	2,279,785.64	3,182,535.66
Handling charges for agency sale	2,974,671.08	2,848,150.94
Warehousing and custodian fees	2,326,488.38	2,335,604.03
Insurance premiums	1,476,268.95	2,291,995.99
Exhibition fees	620,920.17	1,214,087.81
Others	39,001,428.21	50,354,723.59
Total	777,067,439.54	707,920,729.28

8.65.2 General and administrative expenses

Item	Year 2020	Year 2019
Employee compensation	4,257,907,295.77	3,942,083,878.69
Consulting fees	368,981,962.96	518,575,610.97
Depreciation expenses	462,080,658.81	415,733,889.32
Rental expenses	328,428,279.27	320,310,500.79
Amortization of intangible assets	292,403,483.88	284,894,034.57
Property management fees	265,656,020.71	230,582,773.39
Travel expenses	147,136,747.11	226,614,580.34
Office expenses	124,680,770.49	128,440,739.89
Advertising and promotion expenses	66,336,971.03	94,895,576.69
Audit fees	89,787,149.17	86,517,211.39
Entertainment expenses	69,147,247.37	78,200,656.27
Vehicle use expenses	58,884,165.02	70,960,891.13
Repair expenses	81,415,159.82	64,416,389.42
Lawyer fees	79,446,300.33	61,667,493.05

Item	Year 2020	Year 2019
Utility bills	45,408,250.44	56,360,826.80
Insurance premiums	50,488,118.55	53,113,665.17
Technology transfer fees	16,425,339.51	51,804,616.97
Funds for Party construction	26,796,906.03	30,513,055.53
Amortization of low-cost consumables	27,725,612.62	24,039,472.02
Foreign affairs fees	5,933,790.42	18,817,919.97
Conference expenses	12,407,399.12	15,849,152.25
Amortization of long-term deferred expenses	21,205,866.39	15,413,705.07
Others	402,559,240.31	349,741,518.12
Total	7,301,242,735.13	7,139,548,157.81

8.65.3 Research and development expenses

Item	Year 2020	Year 2019
Employee compensation	1,264,752,558.50	703,834,286.38
Development fee for entrustment	352,664,440.03	144,760,386.96
Depreciation and amortization	126,057,565.45	73,642,361.10
On-site test fee for exploration and development technology	36,902,000.00	53,892,772.92
Materials expenses		24,336,804.01
New process specification development fee	8,845,000.00	22,795,000.00
Maintenance expenses of researched and developed fixed assets	126,358,659.78	18,592,357.19
Testing and processing fees		4,136,858.27
Others	390,505,424.79	487,846,050.54
Total	2,306,085,648.55	1,533,836,877.37

8.65.4 Financial expenses

Category	Year 2020	Year 2019
Interest expenses	29,508,088,286.14	27,517,374,716.73
Less: interest income	320,974,782.56	286,266,382.90
Net losses from exchange ("-" for net gains)	239,811,549.63	61,458,460.23
Including: gains from foreign exchange	1,303,569,612.42	631,650,531.93
Exchange losses	1,543,381,162.05	693,108,992.16
Others	443,923,626.57	579,847,107.81
Total	29,870,848,679.78	27,872,413,901.87

8.66 Other income

Item	Year 2020	Year 2019
VAT refund	222,798,204.89	240,763,989.12
Refund of handling charges related to individual income tax	12,733,468.45	5,129,135.41
Deducted input tax based on the input tax deductible in the current period	175,659,788.25	39,935,360.67
Others	1,496,493,227.14	1,562,085,464.01
Total	1,907,684,688.73	1,847,913,949.21

Remark: others mainly refer to the subsidies for post stabilization of RMB 199,693,344.48, heating subsidies of RMB 64,405,468.45, special deferred income carry-forward of RMB 529,114,928.77, subsidies for clean energy of RMB 85,094,815.82, subsidies for coal storage of RMB 146,935,607.35, tax returns of RMB 36,696,677.3, other government grants of RMB 91,308,371.32, subsidies for enterprises with difficulties of RMB 24,307,112.00, subsidies of social security of RMB 12,847,612.33 and relocation compensation of RMB 25,131,480.38.

8.67 Investment income

Sources of investment income	Year 2020	Year 2019
Long-term equity investment income calculated under the equity method	3,070,297,308.30	2,310,519,735.44
Investment income from disposal of long-term equity investments	795,402,306.10	1,561,777,287.26
Investment income obtained during the period of holding financial assets held for trading	432,238,742.73	
Investment income from disposal of financial assets held for trading	40,353,933.79	
Investment income from financial assets measured at fair value through the current profit or loss during the holding period	15,466,903.72	13,090,307.62
Investment income gained from disposing the financial assets measured at fair value through the current profit or loss	158,666,721.88	34,047,415.41
Investment income gained during the period holding the held-to-maturity investments	264,545,349.75	177,358,259.08
Investment income gained from disposing the held-to-maturity investments	574,876.84	2,340,247.81
Investment income from available-for-sale financial assets	458,576,529.53	457,444,815.50
Investment income from disposal of the available-for-sale financial assets	-1,586,536.39	177,023.28
Interest income from creditor's right investment during the holding period	201,167,917.86	516,628,831.09
Interest income during the holding of other creditor's right investments		1,780,931.52
Income from disposal of creditor's right investment		1,215,780.82

Sources of investment income	Year 2020	Year 2019
Dividend revenue obtained during the period of holding other equity instrument investments	98,504,366.73	45,358,813.79
Others	500,373,753.26	655,822,673.96
Total	6,034,582,174.10	5,777,562,122.58

8.68 Gains from changes in fair value

Sources of gains from changes in fair value	Year 2020	Year 2019
Financial assets held for trading (applicable to new standards)	386,054,448.61	-115,835,658.22
Financial assets measured at fair value through the current profit or loss (applicable to old standards)	14,712,353.80	14,751,339.21
Derivative financial assets	526,413.99	-1,517,428.89
Other non-current financial assets (applicable to new standards)		-7,902,620.83
Financial Liabilities held for trading (applicable to new standards)		546,305.00
Financial liabilities measured at fair value through the current profit or loss (applicable to old standards)	-646,619,000.00	
Derivative financial liabilities	-1,577,398.53	
Investment properties measured at fair value	390,522,697.01	163,182,030.92
Others		-88,710.62
Total	143,619,514.88	53,135,256.57

8.69 Losses from credit impairment

Item	Year 2020	Year 2019
Losses from bad debts	466,918,183.16	183,220,716.54
Losses from impairment of creditor's right investment	83,296,952.62	-58,267,941.46
Others	36,155,722.34	21,883,352.54
Total	586,370,858.12	146,836,127.62

8.70 Losses from asset impairment

Item	Year 2020	Year 2019
Losses from bad debts (applicable to old financial instrument standards)	1,854,110,576.95	485,389,466.13
Losses from inventory depreciation	114,442,353.74	675,454,583.00
Losses from impairment of available-for-sale financial assets (applicable to old financial instrument standards)	60,347,640.74	581,495,218.12
Losses from impairment of assets held for sale	293,663,791.96	
Losses from impairment of long-term equity investments	278,719,979.85	1,123,189,492.56
Losses from impairment of fixed assets	1,935,631,247.26	2,175,446,821.20
Losses from impairment of project		18,834,053.69

Item	Year 2020	Year 2019
materials		
Losses from impairment of construction in progress	595,262,909.10	1,329,676,768.81
Losses from impairment of assets	164,547,874.07	3,676,225.42
Losses from impairment of goodwill	1,422,046,023.90	820,983,404.11
Losses from impairment of contract assets	-10,226,166.18	
Others	967,565,842.51	901,348,179.18
Total	7,676,112,073.90	8,115,494,212.22

8.71 Gains from disposal of assets

Item	Year 2020	Year 2019	Amount included in non-recurring profit or loss in the current period
Disposal gains or losses recognized at selling the non-current assets (except for financial instruments, long-term equity investments and investment properties) classified as held for sale or disposal group (except for subsidiaries and business)		650,627.81	
Gains or losses from disposal of non-current assets not classified as held for sale	270,582,106.83	305,362,045.77	270,582,106.83
Gains or losses from disposal of non-current assets		25,481,111.13	
Total	270,582,106.83	331,493,784.71	270,582,106.83

8.72 Non-operating revenue

Item	Year 2020	Year 2019	Amount included in non-recurring profit or loss in the current period
Gains from inventory profit	12,375,014.57	11,040,976.11	12,375,014.57
Gains from the scrapping and damage of non-current assets	10,089,457.04	15,643,510.67	10,089,457.04
Gains from donation	63,550,728.19	150,531,471.12	63,550,728.19
Government grants (subsidy revenue) (excluding items included in other income)	200,746,915.21	208,446,392.89	200,746,915.21
Revenue from fines	32,711,432.89	24,400,824.17	32,711,432.89

Item	Year 2020	Year 2019	Amount included in non-recurring profit or loss in the current period
Revenue from liquidated damages	55,683,567.80	41,869,803.90	55,683,567.80
Others	1,012,437,380.64	926,121,278.90	1,012,437,380.64
Total	1,387,594,496.34	1,378,054,257.76	1,387,594,496.34

Details of government grants:

Item	Year 2020	Year 2019
Revenue from subsidies for energy saving and environmental protection	8,051,537.91	11,734,524.53
Revenue from subsidies for the shutdown of small thermal power generating units		1,740,000.00
Revenue from other government grants	192,695,377.30	194,971,868.36
Total	200,746,915.21	208,446,392.89

Remark: Other government grants mainly include the subsidy for job stability of RMB 12,311,014.30, the subsidy for zombie enterprises of RMB 81,488.65 and all local government support and reward funds of RMB 180,302,874.35.

8.73 Non-operating expenses

Item	Year 2020	Year 2019	Amount included in non-recurring profit or loss in the current period
Inventory losses	3,809,669.93	6,890.47	3,809,669.93
Losses from the scrapping and damage of non-current assets	370,377,471.23	426,256,789.56	370,377,471.23
Penalty expenses	20,577,877.93	251,816,868.41	20,577,877.93
Overdue fines and liquidated damages	37,512,172.98	48,328,617.53	37,512,172.98
Donation outlay	284,876,233.01	88,256,640.38	284,876,233.01
Abnormal losses	11,512,848.53	777,396.33	11,512,848.53
Expenditure on returned government grants	5,825,100.00	30,359.00	5,825,100.00
Expected losses on pending action	10,068,386.00	7,908,669.49	10,068,386.00
Others	735,027,204.39	1,350,315,774.90	735,030,584.39
Total	1,479,586,964.00	2,173,698,006.07	1,479,586,964.00

8.74 Income tax expenses

8.74.1 Breakdowns of income tax expenses

Item	Year 2020	Year 2019
Current income tax expenses	6,970,348,556.91	5,920,772,389.76
Adjustment to deferred income tax	-106,000,501.35	-565,606,976.08
Total	6,864,348,055.56	5,355,165,413.68

8.74.2 Adjustment process of accounting profit and income tax expenses

Item	Year 2020
Total profits	20,699,091,437.74
Income tax expenses calculated at proper/applicable tax rate	5,174,772,859.44
Effect of the application of various tax rates by subsidiaries	-666,806,201.72
Effect of adjustments to the income tax for the prior years	-29,598,586.60
Effect of non-taxable income	-2,131,970,468.99
Effect of non-deductible costs, expenses and losses	1,422,778,678.27
Effect of deductible losses from using the deferred income tax assets unrecognized in previous periods	-855,015,606.84
Effect of deductible temporary differences or losses from deferred income tax assets unrecognized in the current period	2,533,468,180.49
Others	1,416,719,201.51
Income tax expenses	6,864,348,055.56

8.75 Other comprehensive income attributable to owners of the parent company

8.75.1 Items of other comprehensive income and their income tax effects and the transfer profit or loss

Item	Year 2020			Year 2019		
	Amount before tax	Income tax	Net amount after tax	Amount before tax	Income tax	Net amount after tax
I. Other comprehensive income that cannot be reclassified into profit or loss	882,258,405.94	221,325,297.71	660,933,108.23	-169,457,850.47	-12,284,158.89	-157,173,691.58
1. Changes in re-measurement of the defined benefit plan						
2. Other comprehensive income that cannot be transferred to profit or loss under the equity method	-52,049.81		-52,049.81	-275,174.68		-275,174.68
3. Changes in fair value of other equity instrument investment (Applicable for the New Standards)	882,310,455.75	221,325,297.71	660,985,158.04	-169,182,675.79	-12,284,158.89	-156,898,516.90
4. Changes in the fair value of the company's own credit risk (Applicable for the New Standards)						
5. Others						
II. Other comprehensive income that will be reclassified into profit or loss	-1,739,681,735.11	-78,535,730.99	-1,661,146,004.12	979,500,135.85	212,610,385.80	766,889,750.05
1. Other comprehensive income that can be transferred to profit or loss under the equity method	-63,962,920.24		-63,962,920.24	-40,732,441.72	1,244,890.89	-41,977,332.61
Less: amount previously included in the other comprehensive income and currently transferred to the profit or loss						
Sub-total	-63,962,920.24		-63,962,920.24	-40,732,441.72	1,244,890.89	-41,977,332.61
2. Changes in fair value of other creditor's right investment (Applicable for the New Standards)						
Less: amount previously included in the other comprehensive income and currently transferred to the profit or loss						
Sub-total						
3. Profit or loss from changes in the fair value of available-for-sale financial assets (Applicable for the Old Standards)	57,798,825.53	7,962,532.73	49,836,292.80	112,488,496.70	3,519,793.27	108,968,703.43

Item	Year 2020			Year 2019		
	Amount before tax	Income tax	Net amount after tax	Amount before tax	Income tax	Net amount after tax
Less: amount previously included in the other comprehensive income and currently transferred to the profit or loss						
Sub-total	57,798,825.53	7,962,532.73	49,836,292.80	112,488,496.70	3,519,793.27	108,968,703.43
4. Amount of financial assets reclassified into other comprehensive income (Applicable for the New Standards)						
Less: amount previously included in the other comprehensive income and currently transferred to the profit or loss						
Sub-total						
5. Profit or loss from the reclassification of held-to-maturity investments as available-for-sale financial assets (Applicable for the Old Standards)	42,075,183.35		42,075,183.35	197,163,741.27		197,163,741.27
Less: amount previously included in the other comprehensive income and currently transferred to the profit or loss						
Sub-total	42,075,183.35		42,075,183.35	197,163,741.27		197,163,741.27
6. Provision for credit impairment of other creditor's right investment (Applicable for the New Standards)						
Less: amount previously included in the other comprehensive income and currently transferred to the profit or loss						
Sub-total						
7. Reserves of cash flow hedges (effective portion of cash flow hedging profit or loss)	-306,778,987.48	-96,417,589.70	-210,361,397.78	-242,353,175.14	-3,233,038.77	-239,120,136.37
Less: amount previously included in the other comprehensive income and currently transferred to the profit or loss				-30,173,776.86		-30,173,776.86
Adjusted amount transferred into the initial recognition amount of the hedged item	19,891,510.53		19,891,510.53			
Sub-total	-326,670,498.01	-96,417,589.70	-230,252,908.31	-212,179,398.28	-3,233,038.77	-208,946,359.51

Item	Year 2020			Year 2019		
	Amount before tax	Income tax	Net amount after tax	Amount before tax	Income tax	Net amount after tax
8. Differences arising from translation of foreign-currency financial statements	-861,036,253.82		-861,036,253.82	-7,300,416.23		-7,300,416.23
Less: amount previously included in the other comprehensive income and currently transferred to the profit or loss	425,417.00		425,417.00	-80,161.93		-80,161.93
Sub-total	-861,461,670.82		-861,461,670.82	-7,220,254.30		-7,220,254.30
9. Others	-587,460,654.92	9,919,325.98	-597,379,980.90	929,979,992.18	211,078,740.41	718,901,251.77
Less: amount previously included in the other comprehensive income and currently transferred to the profit or loss						
Sub-total	-587,460,654.92	9,919,325.98	-597,379,980.90	929,979,992.18	211,078,740.41	718,901,251.77
III. Total of other comprehensive income	-857,423,329.17	142,789,566.72	-1,000,212,895.89	810,042,285.38	200,326,226.91	609,716,058.47

8.75.2 Adjustment to items in other comprehensive income

Item	Changes in re-measurement of the defined benefit plan	Other comprehensive income that cannot be transferred to profit or loss under the equity method	Changes in fair value of other equity instrument investment	Changes in the fair value of the Company's own credit risk	Other comprehensive income that can be transferred to profit or loss under the equity method	Changes in fair value of other creditor's right investment	Profit or loss from changes in fair value of available-for-sale financial assets	Amount of financial assets reclassified into other comprehensive income	Profit or loss arising from reclassification of held-to-maturity investments as available-for-sale financial assets	Provision for credit impairment of other creditor's right investment	Reserves of cash flow hedges (effective portion of cash flow hedging profit or loss)	Translation differences of foreign currency financial statements	Others	Sub-total
I. Balance as at January 1, 2019		-19,230,746.07	194,211,036.96		54,218,701.26		69,417,183.27	-6,154,756.70	-583,372.00		68,575,948.79	-956,807,534.52	-262,274,773.04	-858,628,312.05
II. Increases/decreases in 2019 ("-" for decreases)		-275,174.68	-156,898,516.90		-41,977,332.61		108,968,703.43		197,163,741.27		-208,946,359.51	-7,220,254.30	718,901,251.77	609,716,058.47
III. Balance as at January 1, 2020		-19,505,920.75	37,312,520.06		12,241,368.65		178,385,886.70	-6,154,756.70	196,580,369.27		-140,370,410.72	-964,027,788.82	456,626,478.73	-248,912,253.58
IV. Increases/decreases in 2020 ("-" for decreases)		-52,049.81	660,189,672.11		-63,962,920.24		49,836,292.80		42,075,183.35		-230,252,908.31	-861,461,670.82	-597,379,980.90	-1,001,008,381.82
V. Balance as at December 31, 2020		-19,557,970.56	697,502,192.17		-51,721,551.59		228,222,179.50	-6,154,756.70	238,655,552.62		-370,623,319.03	-1,825,489,459.64	-140,753,502.17	-1,249,920,635.40

8.76 Borrowing costs

Project	Capitalization rate in 2020 (%)	Capitalized amount of borrowings in 2020
PWR Demonstration Project	3.74	597,287,543.19
Haiyang Nuclear Power Phase II Project	3.90	460,426,508.27
Yangqu Hydropower Station	4.50	282,657,488.80
300 MW Offshore Wind Power Project (H2#) of Rudong Offshore Wind Power Co., Ltd.	4.50	223,701,693.40
State Power Investment Corporation Qinyang 2 * 1000MW Project	4.54	126,938,157.31
Pengze Nuclear Power Project	4.85	118,416,932.36
Myitsone Project	4.55	114,916,474.17
1000MW Wind Power Project in Qieji Township, Hainan Tibetan Autonomous Prefecture	4.50	99,066,566.98
Zhoukou Gas-fired Thermal Power 2 × 300MW Gas-Steam Combined Cycle Thermal Power Plant Project	4.43	84,115,870.32
Phase I Project of High-precision Aluminum Strip	4.60	81,681,497.17
300 MW Smart Wind Power Project (H3#) in Binhai	4.03	66,047,962.69
State Power Investment Corporation Jieyang 900 MW Offshore Wind Plant Project	3.96	65,525,161.49
Turkey EMBA Power Generation 2*660MW Coal-fired Power Station Project	2.11	64,863,808.52
1000MW Photovoltaic Power Station Project Section I in Talatan Region in Hainan Tibetan Autonomous Prefecture	5.00	62,687,054.17
Guangxi Bailong Nuclear Power Project	4.29	55,767,668.27
Self-provided Power Plant	4.18	53,088,894.45
Dabie Mountain Phase II Project	4.10	52,764,260.90
Xuwen Offshore Wind Power Project	4.23	44,605,813.01
Lianjiang Nuclear Power Project	4.07	38,828,627.54
2 * 1000MW 'Loading the Large Generating Set and Shutting down the Small Generating Set' Project of Shanxi China Power Shentou No.2 Power Generation Co., Ltd.	4.12	37,123,559.46
Jingmen High-tech Zone Natural Gas Polygeneration Energy Project	4.38	36,921,905.04
Linhua Coal Mine Expansion Project	4.78	35,149,933.67
500MW Photovoltaic Power Station Project Section III in Talatan Region in Hainan Tibetan Autonomous Prefecture	5.00	35,029,543.06
400MWp Ground Photovoltaic Power Generation Project in Shengping Town, Anda City	4.43	34,684,724.46
Shiwan Gutian Wind Farm Project Phase I	4.90	33,656,114.59
Xiari Hamu Project	4.57	33,154,454.14

Project	Capitalization rate in 2020 (%)	Capitalized amount of borrowings in 2020
300MW Wind Power Project in Hainan Tibetan Autonomous Prefecture	4.50	32,684,939.33
500MW Photovoltaic Power Station Project Section II in Talatan Region in Hainan Tibetan Autonomous Prefecture	5.00	32,415,693.75
200 MW Wind Power Clean Energy Heating Project Phase II 99 MW Project of SPIC in Fanshi County	4.35	30,136,221.28
100MW Wind Power Project of Zanatas Wind Power	4.51	28,637,559.68
400MW Offshore Wind Power Project (H7#) of Rudong Haixiang Offshore Wind Power Co., Ltd.	4.35	27,787,879.85
50MW Photovoltaic Power Generation Project of Xiangyin Jingfu New Energy Co., Ltd.	7.00	26,633,145.77
100MW Wind Power Project of Qingyun Shangde Wind Power Co., Ltd.	6.00	24,642,027.34
Wuling Power Corporation Ltd. New Energy Branch: Taihexian Project in Youxian County	4.32	24,485,910.66
SPIC Huangmei Taibai Lake Wind Power Plant Project Phase I	4.10	23,307,638.87
Thermal Power Project in Lanzhou New Area	2.66	22,786,995.13
Qingyun Phase II Project	5.20	22,081,507.22
400MW Offshore Wind Power Project (H4#) of Rudong Hefeng Offshore Wind Power Co., Ltd.	4.03	21,208,681.25
2×60MW Natural Gas Distributed Energy Station Project of China Power (Jiangmen) Comprehensive Energy Co., Ltd. in the High-tech Zone	4.32	21,205,723.17
Mulei Laojun Temple 49.5MW * 2 Wind Power Project	4.90	20,871,524.87
100 MW Wind Power Project of Shenmu New Energy Power Generation Co., Ltd. in Gaojiabao	4.90	20,260,273.73
Project of Liaoning Zhitong Dongguan Photovoltaic Power Co., Ltd.	5.53	19,490,792.14
120MW Wind Power Project in Xiaowangzhuang, Lingqiu County	4.90	17,456,791.06
Yunwuyu Wind Power Project Phase III in Fanshi County, Shanxi Province	4.65	16,232,156.69
China Power New Energy - Pingdingshan Environmental Protection Agency - Pingdingshan Domestic Waste Incineration Cogeneration Project Construction	5.00	15,860,347.31
Aishan 100 MW Wind Power Project in Jiaozhou, Qingdao	3.89	15,610,585.48
Zonglingbei Wind Power Plant Project in Nayong County	5.17	14,385,349.10

Project	Capitalization rate in 2020 (%)	Capitalized amount of borrowings in 2020
Wind Power Project in Changyuan County	4.41	14,029,654.79
200 MW Wind Power Clean Energy Heating Project Phase I 99 MW Project of SPIC in Fanshi County	4.99	13,912,941.62
35MW Photovoltaic Power Generation Project of SEP Baitang New Energy Co., Ltd. in Miluo	7.00	13,901,232.05
Huitoulong Wind Power Project of Wuling Power Corporation Ltd.	4.42	13,727,507.00
500 MW Affordable Internet Access Demonstration Project of China Power (Chaoyang) New Energy Co., Ltd.	4.46	13,664,802.19
Wind Power Project in Huanglong County	4.22	13,429,676.35
Zhongquan Project Phase I of SPIC Hebei Zhangbei New Energy Co., Ltd.	4.90	13,181,468.82
Yuanjiang Chaixiazhou Wind Power Plant Project Phase II	4.51	12,793,472.48
Shanghe Phase I 100MW Wind Power Project	4.73	12,370,752.40
Dalian Tuoshan Phase III Wind Power Project	4.41	12,362,418.50
SPIC Jiedong Cogeneration Project	4.41	12,250,262.70
100 MW Photovoltaic Project of Baotou Leader	5.20	12,215,048.65
Wind Power Project in Qinshui County	4.97	12,021,377.72
Development expenditures - Development of 300MW heavy-duty gas turbine	3.60	11,626,700.00
80MW Wind Power Project in Weishi County	4.41	11,311,599.40
General Wharf Project Phase I at Qianzhan Operation Area, Jieyang Port	4.51	11,048,288.91
Wind Power Project Phase I in Xiangning County	4.70	11,010,192.47
Shijiazhuang Beijiao Gas Turbine Cogeneration Project	4.71	10,928,885.10
Ganshan Wind Power Project	4.41	10,237,276.23
48 MW Power Project Phase I in Chakou Town, Gujiao City	4.66	10,047,175.04

8.77 Conversion of foreign currency

The balance of exchange included in the current profit or loss amounted to RMB -244,395,251.57.

8.78 Leases

8.78.1 Providing leases under the finance lease:

(1) Leaser under the finance lease

Remaining lease term	Minimum lease receipts
Within 1 year (including 1 year)	21,448,616,618.48
1-2 years (including 2 years)	8,123,046,992.20
2-3 years (including 3 years)	8,266,566,503.13
Over 3 years	23,927,980,905.81

Remaining lease term	Minimum lease receipts
Total	61,766,211,019.62

As at December 31, 2020, the balance of unrealized financing income amounted to RMB 13,125,453,326.05.

8.78.2 Accepting leases under the finance lease:

(1) Original values, accumulated depreciation amounts, and accumulated amounts of provision for impairment of various leased-in fixed assets at the beginning and end of the period

Assets	Original value of fixed assets at the beginning of the period	Original value of fixed assets at the end of the period	Accumulated depreciation amount	Accumulated amount of provision for impairment
Machinery equipment	51,276,244,109.79	49,800,482,933.42	13,157,354,814.69	
Total	51,276,244,109.79	49,800,482,933.42	13,157,354,814.69	

(2) Minimum lease payment to be paid in the following year

Remaining lease term	Minimum lease payment
Within 1 year (including 1 year)	11,093,440,118.54
1-2 years (including 2 years)	6,616,732,823.57
2-3 years (including 3 years)	3,626,690,611.44
Over 3 years	8,443,605,366.36
Total	29,780,468,919.91

As at December 31, 2020, the balance of unrecognized finance fees amounted to RMB 4,600,622,546.65.

8.78.3 Significant information on operating lease:

Remaining lease term	Amount of operating lease
Within 1 year (including 1 year)	167,238,146.87
1-2 years (including 2 years)	49,616,054.56
2-3 years (including 3 years)	34,810,747.26
Over 3 years	1,083,302,988.60
Total	1,334,967,937.29

8.78.4 Disclosure of the information on the leasee under the New Standards for Lease

(1) Information on the leasee

Item	Amount
Interest expenses on lease liabilities	217,335,080.81
Short-term lease fees included in the current profit or loss	152,232.28
Low-value asset lease fees included in the current profit or loss	
Variable lease payment not included in the lease liabilities for measurement	
Revenue from the sublease of right-of-use assets	
Total cash outflows relevant to lease	1,925,966,605.43
Leaseback-related profit or loss	
Others	

8.79 Segment information

Unit: RMB '0,000

Item	Electric power		Heating Power		Coal		Aluminum	
	Year 2020	Year 2019	Year 2020	Year 2019	Year 2020	Year 2019	Year 2020	Year 2019
I. Operating revenue	20,706,502.59	19,536,732.38	1,013,835.63	982,798.72	1,439,753.92	1,432,921.92	7,699,996.83	8,688,605.92
Including: revenue from external transactions	19,022,667.80	17,669,713.09	701,588.52	729,852.31	664,084.14	540,725.75	5,526,922.85	5,706,978.09
Revenue from inter-segment transactions	1,683,834.79	1,867,019.29	312,247.11	252,946.41	775,669.78	892,196.17	2,173,073.98	2,981,627.83
II. Income from investments in associates and joint ventures	279,641.20	219,106.54	203.49	477.64	9,499.73	15,086.28	-40,557.09	-3,823.87
III. Losses from asset impairment	-530,123.84	-313,362.56	-1,452.70	-29,824.23	-23,129.17	-653.68	-12,879.93	-85,398.75
IV. Losses from credit impairment (Applicable for the New Standards)	-4,808.30	-3,960.06	-258.24	-549.38	-187.38	320.81	-35,677.67	-378.49
V. Depreciation and amortization expenses	3,414,908.90	3,107,206.26	74,848.74	70,020.85	129,810.15	87,097.33	229,055.73	228,840.22
VI. Total profits	3,043,166.99	2,551,325.07	-124,861.33	-154,861.81	269,908.06	335,844.94	-42,797.92	40,315.02
VII. Income tax expenses	435,367.55	359,754.06	2,805.15	6,506.69	76,494.14	65,530.61	32,000.75	17,019.62
VIII. Net profit	2,607,799.44	2,191,571.01	-127,666.48	-161,368.51	193,413.93	270,314.32	-74,798.67	23,295.40
IX. Total assets	179,722,965.38	150,522,346.16	2,384,654.90	2,733,222.16	3,740,874.70	3,056,418.62	7,016,865.37	6,446,881.06
X. Total liabilities	106,974,236.67	91,476,162.44	1,703,533.53	1,567,178.84	2,220,205.28	2,010,368.85	5,048,217.98	5,101,067.91

Item	Electric power		Heating Power		Coal		Aluminum	
	Year 2020	Year 2019	Year 2020	Year 2019	Year 2020	Year 2019	Year 2020	Year 2019
XI. Other significant non-cash items	165,674.47	126,282.20	315.86	398.40	3,998.24	2,289.24	-31,272.80	-133.84
Including: other non-cash expenses than the depreciation and amortization expenses	38,235.43	89,846.10	315.86	398.40	2,408.57	2,289.24		
Amount increased via the accounting by the equity method of long-term equity investments of the Company in associates and joint ventures	127,439.05	36,436.10			1,589.68		-31,272.80	-133.84

(Continued)

Item	Others		Offset		Total	
	Year 2020	Year 2019	Year 2020	Year 2019	Year 2020	Year 2019
I. Operating revenue	6,336,109.61	6,120,947.72	-9,373,419.57	-9,538,014.38	27,822,779.01	27,223,992.28
Including: revenue from external transactions	1,907,515.70	2,576,723.04			27,822,779.01	27,223,992.28
Revenue from inter-segment transactions	4,428,593.91	3,544,224.68	-9,373,419.57	-9,538,014.38		
II. Income from investments in associates and joint ventures	43,401.50	-40,820.03	14,840.90	41,025.42	307,029.73	231,051.98

Item	Others		Offset		Total	
	Year 2020	Year 2019	Year 2020	Year 2019	Year 2020	Year 2019
III. Losses from asset impairment	-159,060.84	-271,638.89	-40,964.73	-110,671.31	-767,611.21	-811,549.42
IV. Losses from credit impairment (Applicable for the New Standards)	-47,310.32	-52,086.75	29,604.83	41,970.26	-58,637.08	-14,683.61
V. Depreciation and amortization expenses	182,080.75	182,421.14	198,192.98	250,123.85	4,228,897.25	3,925,709.65
VI. Total profits	-21,938.05	147,371.14	-1,053,568.61	-1,329,868.02	2,069,909.14	1,590,126.34
VII. Income tax expenses	153,281.49	105,464.87	-13,514.27	-18,759.31	686,434.81	535,516.54
VIII. Net profit	-175,219.54	41,906.27	-1,040,054.34	-1,311,108.70	1,383,474.34	1,054,609.79
IX. Total assets	33,429,237.74	32,009,129.94	-93,880,908.24	-75,334,834.42	132,413,689.85	119,433,163.52
X. Total liabilities	23,843,359.56	22,993,366.78	-42,495,080.08	-32,701,045.25	97,294,472.94	90,447,099.57
XI. Other significant non-cash items	37,620.51	21,373.33	66,479.84	-12,031.51	242,816.12	138,177.82
Including: other non-cash expenses than the depreciation and amortization expenses	3,075.89	-1,062.36		-11,940.08	44,035.75	79,531.30
Amount increased via the accounting by the equity method of long-term equity investments of the Company in associates and joint ventures	34,544.62	22,435.69	66,479.84	-91.43	198,780.39	58,646.52

Partial revenue from external transactions and divided by product or business

Item	Year 2020	Year 2019
Electric power	190,226,678,085.58	176,697,130,857.35
Heating Power	7,015,885,170.37	7,298,523,102.89
Coal	6,640,841,446.50	5,407,257,454.61
Aluminum	55,269,228,467.09	57,069,780,852.41
Others	19,075,156,999.96	25,767,230,368.33
Sub-total	278,227,790,169.50	272,239,922,635.59

8.80 Consolidated statement of cash flows

8.80.1 Information on adjusting net profit to cash flows from operating activities

Supplementary information	Year 2020	Year 2019
1. Net profit adjusted to cash flows from operating activities:		
Net profit	13,834,743,382.18	10,546,097,903.70
Plus: losses from asset impairment	7,676,112,073.90	8,115,494,212.22
Losses from credit impairment (applicable to the new standards for financial instruments)	586,370,858.12	146,836,127.62
Depreciation of fixed assets, depletion of oil and gas assets, and depreciation of productive biological assets	38,351,976,576.29	36,722,916,927.26
Depreciation of right-of-use assets (applicable to the new standards for lease)	222,122,611.49	256,492,879.02
Amortization of intangible assets	1,235,082,602.39	1,377,767,537.36
Amortization of long-term deferred expenses	739,883,427.58	613,831,825.63
Losses from disposal of fixed assets, intangible assets and other long-term assets ("-" for gains)	-270,582,106.83	-331,493,784.71
Losses from scrapping of fixed assets ("-" for gains)	279,312,805.25	410,613,278.89
Losses from changes in fair value ("-" for gains)	-143,619,514.88	-53,135,256.57
Financial expenses ("-" for gains)	29,508,088,286.14	28,158,502,955.48
Investment losses ("-" for gains)	-6,034,582,174.10	-5,777,562,122.58
Decreases in deferred income tax assets ("-" for increases)	68,179,892.06	-774,144,395.84
Increases in deferred income tax liabilities ("-" for decreases)	-174,180,393.41	326,143,887.64
Decreases in inventories ("-" for increases)	241,868,897.87	-438,020,431.80
Decreases in operating receivables ("-" for increases)	-32,237,218,529.02	-37,903,345,586.83
Increases in operating payables ("-" for decreases)	2,692,576,355.81	4,066,656,765.06
Others	-1,512,869,697.87	-4,056,742,789.41
Net cash flows from operating activities	55,063,265,352.97	41,406,909,932.14
2. Significant investing and financing activities not involving cash receipts and payments:		

Supplementary information	Year 2020	Year 2019
Conversion of debt into capital		
Convertible corporate bonds maturing within one year		
Fixed assets acquired under finance leases	25,058,690,790.79	51,276,244,109.79
3. Net changes in cash and cash equivalents:		
Ending balance of cash	19,177,753,366.97	24,193,262,514.89
Less: beginning balance of cash	24,193,262,514.89	19,080,581,047.91
Plus: ending balance of cash equivalents		
Less: beginning balance of cash equivalents		
Net increase in cash and cash equivalents	-5,015,509,147.92	5,112,681,466.98

8.80.2 Net cash from acquisition and disposal of subsidiaries in 2020

Item	Amount
I. Cash or cash equivalents incurred and paid for business combination in 2020	9,004,053,517.01
Less: cash and cash equivalents held by subsidiaries on the acquisition date	1,610,179,777.32
Plus: cash or cash equivalents incurred and paid for business combination in previous periods	
Net cash paid to acquire subsidiaries	7,393,873,739.69
II. Cash or cash equivalents received in the current period from disposal of subsidiaries in the current period	521,213,047.59
Less: cash and cash equivalents held by subsidiaries on date of losing control	1,798,226,498.10
Plus: cash or cash equivalents received in the current period from disposal of subsidiaries in prior periods	
Net cash received from disposal of subsidiaries	-1,277,013,450.51

8.80.3 Composition of cash and cash equivalents

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
I. Cash	19,177,753,366.97	24,193,262,514.89
Including: cash on hand	10,149,051.59	2,165,080.22
Unrestricted bank deposit	18,452,481,724.18	22,185,807,464.09
Other unrestricted monetary funds	715,122,591.20	2,005,289,970.58
Unrestricted deposits in central bank		
Deposits in banks and other financial institutions		
Loans to banks and other financial institutions		
II. Cash equivalents		
Including: bond investments maturing within three months		
III. Ending balance of cash and cash equivalents	19,177,753,366.97	24,193,262,514.89
Including: cash and cash equivalents restricted for use by the parent		

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
company or subsidiaries in the group		

8.81 Monetary items in foreign currency

Item	Balance in foreign currency as at December 31, 2020	Exchange rate	Balance in RMB converted as at December 31, 2020
Monetary funds			4,198,046,784.16
Including: USD	20,777,161.79	6.5249	135,568,902.95
EUR	60,135,058.52	8.0250	482,583,844.62
HKD	236,971,126.05	0.8416	199,434,899.68
JPY	1,722,345,342.45	0.0632	108,914,228.40
SGD	2,251.24	4.9314	11,101.75
AUD	74,544,599.73	5.0163	373,938,075.61
BRL	1,032,364,041.03	1.2557	1,296,339,526.32
VND	2,178,189,978,723.40	0.0003	614,249,574.00
IDR	172,647,311,578.13	0.0006	110,494,279.41
Others	192,625,636,957.88		876,512,351.42
Accounts receivable			19,466,346,040.94
Including: USD	85,497,833.13	6.5249	557,864,811.35
EUR	13,364,909.68	8.0250	107,253,400.19
Others	11,059,545,782.00		103,751,941.67
Short-term borrowings			3,101,704,926.87
Including: USD	423,192,039.84	6.5249	2,761,285,740.45
EUR	17,497,717.93	8.0250	140,419,186.42
HKD	237,642,585.56	0.8416	200,000,000.00
Long-term borrowings			25,138,091,842.81
Including: USD	330,380,203.52	6.5249	2,155,697,789.73
EUR	2,830,529.60	8.0250	22,715,000.00
HKD	125,401,256.30	0.8416	105,537,697.30
Bonds payable			22,837,150,000.00
Including: USD	3,500,000,000.00	6.5249	22,837,150,000.00

8.82 Assets with restrictions on the ownership or use right

Item	Book value as at December 31, 2020	Reason for restriction
Monetary funds	4,169,466,392.36	Statutory reserves, bill deposits and L/C deposits in the central bank
Notes receivable	79,324,833.29	Pledged loans
Accounts receivable	31,634,140,112.21	Pledged loans
Inventories	827,618,025.79	Assets used for guarantee
Fixed assets	13,974,824,083.70	Assets used for guarantee
Fixed assets	39,027,384,559.41	Assets acquired under finance leases
Long-term receivables	38,343,404,364.95	Pledged loans
Intangible assets	1,763,175,703.94	Assets used for guarantee
Construction in progress	9,271,775,203.02	Assets used for guarantee
Right-of-use assets	1,014,009,322.93	Assets acquired under finance leases

Item	Book value as at December 31, 2020	Reason for restriction
Others	4,036,848,351.89	Pledge
Total	144,141,970,953.49	

9 Contingencies

9.1 Contingent liabilities

9.1.1 Contingent liabilities from pending litigation or arbitration

(1) Litigation case of dispute over project engineering construction filed by SPIC Yuanda Water Service Co., Ltd., a subsidiary of the Company, against Botian Chemical Engineering:

SPIC Yuanda Water Service Co., Ltd. (hereinafter referred to as "Water Service Company") filed a lawsuit against Dingsheng Company with Tianjin Municipal Superior People's Court (the "Court") on April 17, 2015, and the Court organized a collegial panel and opened a court session on August 13, 2018. On September 26, 2018, the Court made the first instance judgment, in which Dingsheng Company shall pay Water Service Company the engineering payment of RMB 87,161,300.00 and the interest thereof within ten days as of the effective date of such judgment. On October 17, 2018, Water Service Company received an appeal petition submitted by Dingsheng Company from the Court. In the appeal petition, Dingsheng Company requested the Court to cancel the civil judgment ([2015] JGMYCZ No. 0014) made by the Court and reject the appellee's claim. On March 19, 2019, the case was tried by the Court for the second instance, and the case disputes summarized by the Court focused on: 1) The validity of the general contract and its subsidiary agreement; 2) Whether Dingsheng Company should pay the engineering payment or not, and how to determine the engineering payment amount; 3) Dingsheng Company asked Yuanda Water Service Company to continue to perform the contract based on the original construction design drawing, and whether the request of completing the rectification according to the contract should be supported or not. The court investigation and debate were carried out focusing on these disputes. The Court has not made a judgment yet.

(2) Dispute over the engineering construction contract involving SPIC Inner Mongolia Baiyinhua Coal Power Co., Ltd., a subsidiary of the Company:

For litigation case of dispute over the construction contract filed by the First Engineering Construction Co., Ltd. of Beijing Construction Engineering Group against Coal Power Silicon Branch Company, the first instance judgment ([2016] N2526MC No. 390) was made on June 20, 2018, by which Coal Power Silicon Branch Company shall pay the engineering payment of RMB 5,936,160.00 and compensate for the loss from construction suspension and shutdown of RMB 5,902,652.00. As for such judgment, the engineering payment had been paid before the first instance judgment, but Coal Power Silicon Branch Company refused to compensate for the loss from construction suspension and shutdown of RMB 5,902,652.00 and had made an appeal to Xilin Gol League Intermediate People's Court.

(3) Claim for L/C extension of Inner Mongolia HMHJ Aluminum Electricity Co., Ltd., a subsidiary of the Company:

In 2008, Inner Mongolia HMHJ Aluminum Electricity Co., Ltd., a subsidiary of the Group signed the Ten-year Contract for Aluminium Oxide (July 2008 - June 2019) with GLENCORE AG (hereinafter referred to as the "Contract"). According to the Contract, the total quantity should be 2.50 million tons, the delivery quantity in each contract year should be 0.25 million tons and the

delivery quantity of home-made aluminium oxide should not exceed 40% of the total delivery quantity. However, GLENCORE AG failed to deliver the imported aluminium oxide as agreed in the Contract, constituting a breach of the Contract.

On April 28, 2019, HMHJ Aluminum Electricity Co., Ltd. submitted the arbitration application to the Hong Kong International Arbitration Centre. On April 30, 2019, Hong Kong International Arbitration Centre accepted the case. In March 2020, HMHJ Aluminum Electricity Co., Ltd. received the Written Defense, Counterclaim and Cross Request from the acting law firm of GLENCORE AG. GLENCORE AG expressed in the Counterclaim that HMHJ Aluminum Electricity Co., Ltd. had refused accept goods, causing losses of USD 33,212,659.14 at least as at January 31, 2020; moreover, it believed that HMHJ Aluminum Electricity Co., Ltd. failed to provide the annual aluminium oxide purchase plan and provide GLENCORE AG with the right and opportunity to participate in the negotiation and quotation of aluminium oxide purchase, violating relevant agreements in the Sales Contract for aluminium oxide, and the losses caused by could not be calculated for the time being. On June 17, 2020, GLENCORE AG withdrew the USD 20.00 million of standby letter of credit issued by HMHJ Aluminum Electricity Co., Ltd. with Tongliao Branch of the Bank of China Limited. HMHJ Aluminum Electricity Co., Ltd. and GLENCORE AG have completed the evidence exchange, and the case has been in the stage for witness testimony and expert argumentation. As Hong Kong International Arbitration Centre has not made the arbitration regarding the case, the specific information will be otherwise disclosed when the impact on the company's profits by the case is finally determined.

(4) Baiyinhua Coal Power Co., Ltd., a subsidiary of the Company was fined due to the illegal occupation of grassland:
For the strip mine belonging to Baiyinhua Coal Power Co., Ltd., a subsidiary of the Company, according to the *Written Decision of Case-filing* (NJXFMG [2019] 15250000004) given by Xilin Gol League Procuratorate Branch, the exploitation of strip mine may damage the public interest as it destroyed the ecological resources of grassland, a case was filed for investigation. Baiyinhua Coal Power Co., Ltd. had been subject to punishment based on its existing land used covering an area of 11,944.3089 mu. The fine was calculated based on the punishment standard of RMB 125.24/mu at 6-12 times, and the average value was RMB 13,463,100.00.

According to the *Written Decision of Case-filing* (NJXFMG [2019] 15250000004) given by Xilin Gol League Procuratorate Branch, the mining of Baiyinhua Coal Industry Co., Ltd. may damage the public interest as it destroyed the ecological resources of grassland, a case was filed for investigation. Baiyinhua Coal Industry Co., Ltd. had been subject to punishment based on its existing land used covering an area of 21,398.0068 mu. The fine was calculated based on the punishment standard of RMB 125.24/mu at 6-12 times, and the average amount was RMB 24,119,000.00.

(5) Indemnity of SPIC Guangdong Power Co., Ltd., a subsidiary of the Company:
Due to matter concerning the lands relevant to Shantou Thermal Power Plant of the Company's subsidiary SPIC Guangdong Power Co., Ltd. (hereinafter referred to as "Guangdong Company"), several lawsuits involving SPIC Guangdong Power Co., Ltd. and the minority project shareholder Songshan Thermal Power Plant Co., Ltd. in Shantou Special Economic Zone (hereinafter referred to as "Songshan Power Plant") were filed. As at December 31, 2020, Guangdong Company had accumulatively paid various indemnities amounting to RMB 20.00 million to Songshan Power Plant for such matter. The first sum of

indemnity of RMB 10.00 million was withheld at the end of 2018 and paid in February 2020, and the second sum of indemnity of RMB 10.00 million was paid in September 2020 and has been temporarily treated on credit (advances to suppliers). According to the current lawsuit process, the second sum of indemnity of RMB 10.00 million is unlikely to be collected.
Meanwhile, as Songshan Power Plant considered that the payment of RMB 10.00 million for delayed performance of land was lower than the standard it advocated of RMB 30.00 million, it had put forward the execution objection. According to the previous ruling practice of the court, Guangdong Company may face with risk of pay the indemnity doubly.

(6) Involvement in litigation of the Company's subsidiary Bridge Trust:
As at December 31, 2020, the Company's subsidiary Bridge Trust have been involved in 28 pending litigations, in which pending litigations with amount over RMB 1 million are as follows (Monetary unit: RMB'0,000):

Item	Case No.	Amount involved	Remark
Litigation matter in which Bridge Trust acts as the defendant	2	6,511.49	Remark 1
Litigation/execution matters in which Bridge Trust acts as the plaintiff/applicant	14	320,518.85	Remark 2
Lawsuit-related matter in which Bridge Trust acts as a third party	11	258,800.00	Remark 3

Remark 1: ① The litigation matter in which Bridge Trust acts as the defendant refers to the trust dispute caused by certain individual fund trust under the management of Bridge Trust. In January 2016, Bridge Trust set up an individual fund trust as entrusted by the client, i.e. the third-party bank involved in the case. According to the designation of the client, Bridge Trust made loans to Baota Petrochemical Group Co., Ltd., for which Ningxia Baota Energy Chemical Co., Ltd., Ningxia Baota Oil and Gas Sales Co., Ltd. and Sun Hengchao provided the joint liability guarantee. As the borrower failed to perform the obligation of principal repayment and interest payment, Bridge Trust returned the trust creditor's right to the client beneficiary. In January 2019, Bridge Trust received the notice of respondence to action issued by Henan Superior People's Court. In such notice, the plaintiff advocated that Bridge Trust should deliver the fund to such bank, which should set up such individual fund trust as the client beneficiary. Now, as the borrower fails to repay the principle and interest on time and in full amount, the plaintiff requires Bridge Trust to compensate its principal and interest losses, other defendants and the third party to bear joint liability for the above request; and all defendants and the third-party bank to bear the litigation fee, security fee, security guarantee fee and lawyer fee. The above case has been transferred to the Yinchuan Intermediate People's Court by the Henan Superior People's Court. On August 21, 2020, the plaintiff changed the lawsuit request, in which Bridge Trust should be the only defendant, while other defendants should be changed as third parties, and Bridge Trust should pay the principal of RMB 50.00 million and interest thereof to the plaintiff. On December 21, 2020, Yinchuan Intermediate People's Court rejected the lawsuit filed by the plaintiff. Thereafter, the plaintiff instituted an appeal. As at the reporting date of the financial statement, such case has been in the procedure of second instance.

② The litigation matter in which Bridge Trust acts as the defendant refers to the dispute caused by a collective fund trust plan under the management of Bridge Trust. In August 2018, Bridge Trust set up a collective fund trust plan, and the funds under the trust plan were invested in Zhengzhou Mingshuo Real Estate Co., Ltd. (hereinafter referred to as "Mingshuo Company") in the form of equity and creditor's right. Due to the dispute over the construction contract entered into by and between Mingshuo Company and Henan Longsheng Earthwork Clearing and Transportation Co., Ltd. (hereinafter referred to as "Longsheng Company"), Longsheng Company filed a lawsuit against Mingshuo Company, asking Mingshuo Company to pay off the engineering payment of RMB 15,114,900.00 and interest thereof, and liquidated damages, and requesting Bridge Trust to undertake the joint and several liability on the ground that Bridge Trust was the sole shareholder of Mingshuo Company. The court of first instance made the first instance judgment on January 18, 2021, ordering that the case-related contract and the supplementary contract thereof shall be terminated, Mingshuo Company shall pay the engineering payment and liquidated damages to the plaintiff, and Bridge Trust shall bear the joint and several liability for the above-mentioned debt. Both the parties were unsatisfied with the first instance judgment, and Bridge Trust instituted an appeal. On March 15, 2021, Zhengzhou Intermediate People's Court made the second instance judgment, rejecting the plaintiff's lawsuit request that Bridge Trust should bear the joint and several liability. As at April 11, 2021, the case has been closed.

Remark 2: Litigation/execution matter in which Bridge Trust acts as the plaintiff/applicant is relevant to the dispute over trust project, and refers to the application for lawsuit/compulsory execution made by Bridge Trust for the purpose of performing the management duty and maintaining the client's interest. In which, projects involved in the consolidated structured entities of Bridge Trust are "Bridge Fucheng No. 93 Collective Fund Trust Plan (Dongcheng District Heritage Conservation Fund)", and "Bridge Fucheng No. 368 Collective Fund Trust Plan (Hancheng Financial Holding Group)", Bridge Trust has assessed the underlying assets of lawsuit-related projects accordingly and adjusted the book values of these assets.

Remark 3: Lawsuit-related matter in which Bridge Trust acts as a third party refers to the contract dispute caused by the individual affair-management fund trust set up by Bridge Trust as entrusted by the client/beneficiary (the plaintiff). In such lawsuit, Bridge Trust acts as the third party.

9.1.2 Guarantees provided for the units within and outside the group (Monetary unit: RMB '0,000)

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
	Total							6,579,634.00	2,330,097.12
	I. For entities within the Group							6,426,572.14	2,243,794.62
1	Chongqing Yuanda Flue Gas Treatment Franchise Co., Ltd.	Inner Mongolia Yuanda Shouda Environment Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	5,100.00	5,100.00
2	Guizhou Xidian Power Co., Ltd.	SPIC Guizhou Jinyuan Weining Energy Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	19,250.00	19,250.00
3	Guizhou Xidian Power Co., Ltd.	SPIC Guizhou Jinyuan Weining Energy Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	19,000.00	19,000.00
4	Guizhou Xidian Power Co., Ltd.	SPIC Guizhou Jinyuan Weining Energy Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	7,000.00	7,000.00
5	Guizhou Xidian Power Co., Ltd.	SPIC Guizhou Jinyuan Weining Energy Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	6,000.00	6,000.00
6	Guizhou Xidian Power Co., Ltd.	SPIC Guizhou Jinyuan Weining Energy Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	7,917.24	7,917.24
7	Guizhou Xidian Power Co., Ltd.	SPIC Guizhou Jinyuan Weining Energy Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	29,000.00	29,000.00
8	Guizhou Xidian Power Co., Ltd.	SPIC Guizhou Jinyuan Weining Energy Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	17,376.26	17,376.26
9	Guizhou Xidian Power Co., Ltd.	SPIC Guizhou Jinyuan Weining Energy Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	31,074.33	31,074.33
10	Guizhou Xidian Power Co., Ltd.	SPIC Guizhou Jinyuan Weining Energy Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	27,039.66	27,039.66

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
11	Guizhou Zhongshui Energy Co., Ltd.	SPIC Guizhou Jinyuan Weining Energy Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	64,500.00	
12	Zhangping Huakou Hydropower Co., Ltd.	Zhao'an China Power PV Power Generation Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	6,200.00	
13	Shandong Electric Power Engineering Consulting Institute Corp., Ltd.	Shandong Ludian International Trade Co., Ltd.	State-controlled	No	Joint liability guarantee	Other guarantee	Without counter guarantee	44,906.46	44,906.46
14	State Nuclear Bao Ti Zirconium Industry Company	Northwest Zirconium Tube Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	6,900.00	
15	State Nuclear Bao Ti Zirconium Industry Company	Northwest Zirconium Tube Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,743.00	
16	State Nuclear Bao Ti Zirconium Industry Company	Northwest Zirconium Tube Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	8,170.00	
17	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Guizhou Zunyi Industry Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	68,750.00	
18	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Ningxia Energy Aluminum Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	100,000.00	100,000.00
19	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Guizhou Zunyi Industry Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	58,000.00	58,000.00
20	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	68,400.00	
21	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	61,045.00	

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
22	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Ningxia Energy Aluminum Yinchuan New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	16,200.00	
23	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Shanxi Aluminum Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	56,240.00	56,240.00
24	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-controlled	No	General guarantee	Loan guarantee	Mortgage	2,000.00	2,000.00
25	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	9,650.00	
26	SPIC Chongqing Electric Power Co., Ltd.	Guizhou Xishui Dingtai Energy Development Co., Ltd.	State-controlled	No	General guarantee	Loan guarantee	Without counter guarantee	4,738.53	
27	SPIC Chongqing Electric Power Co., Ltd.	Guizhou Xishui Dingtai Energy Development Co., Ltd.	State-controlled	No	General guarantee	Loan guarantee	Without counter guarantee	16,110.90	16,110.90
28	SPIC Chongqing Electric Power Co., Ltd.	Wudongyan Wind Power Generation Co., Ltd., Fengdu County, Chongqing	State-controlled	No	General guarantee	Loan guarantee	Without counter guarantee	65,910.00	65,910.00
29	SPIC Yuanda Environmental Protection Co., Ltd.	Chongqing Yuanda Flue Gas Treatment Franchise Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Pledge of accounts receivable	4,000.00	4,000.00
30	SPIC Yuanda Environmental Protection Co., Ltd.	SPIC Yuanda Water Service Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Pledge of accounts receivable	5,000.00	5,000.00
31	SPIC Yuanda Environmental Protection Co., Ltd.	SPIC Yuanda Environmental Protection Engineering Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Pledge of accounts receivable	10,000.00	10,000.00
32	SPIC Hubei Lvdong New Energy Co., Ltd.	SPIC Jingmen Lvdong Energy Co., Ltd.	Wholly state-owned	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	9,000.00	

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
33	SPIC Hubei Lvdong New Energy Co., Ltd.	SPIC Jingmen Lvdong Energy Co., Ltd.	Wholly state-owned	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	11,000.00	
34	SPIC Hubei Lvdong New Energy Co., Ltd.	SPIC Jingmen Lvdong Energy Co., Ltd.	Wholly state-owned	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	
35	SPIC Hubei Lvdong New Energy Co., Ltd.	SPIC Jingmen Lvdong Energy Co., Ltd.	Wholly state-owned	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	3,000.00	
36	SPIC Hubei Lvdong New Energy Co., Ltd.	SPIC Jingmen Lvdong Energy Co., Ltd.	Wholly state-owned	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	5,000.00	
37	SPIC Hubei Lvdong New Energy Co., Ltd.	Guangshui Lvdong PV Power Generation Co., Ltd.	Wholly state-owned	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	13,400.00	
38	SPIC Hubei Lvdong New Energy Co., Ltd.	SPIC Jingmen Lvdong Energy Co., Ltd.	Wholly state-owned	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	7,400.00	
39	SPIC Hubei Lvdong New Energy Co., Ltd.	SPIC Jingmen Lvdong Energy Co., Ltd.	Wholly state-owned	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	15,900.00	
40	SPIC Hubei Lvdong New Energy Co., Ltd.	Hanchuan Shenghe New Energy Development Co., Ltd.	Wholly state-owned	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	12,990.00	
41	SPIC Hubei Lvdong New Energy Co., Ltd.	Shayang Lvdong PV Power Generation Co., Ltd.	Wholly state-owned	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	22,600.00	
42	SPIC Hubei Lvdong New Energy Co., Ltd.	SPIC Jingmen Lvdong Energy Co., Ltd.	Wholly state-owned	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	8,800.00	
43	SPIC Hubei Lvdong New Energy Co., Ltd.	SPIC Jingmen Lvdong Energy Co., Ltd.	Wholly state-owned	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	11,100.00	
44	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	1,003.00	1,003.00

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
45	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	7,650.00	
46	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	1,331.00	1,331.00
47	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminium Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	6,000.00	6,000.00
48	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	5,500.00	
49	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Qingxin Tansu Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	14,000.00	14,000.00
50	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminium Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	10,000.00	10,000.00
51	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminium Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	12,000.00	12,000.00
52	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Wuzhong New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	
53	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminium Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	16,000.00	16,000.00
54	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminium Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	5,000.00	5,000.00
55	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	995.00	995.00
56	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Science and Technology Engineering Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	1,500.00	1,500.00

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
57	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	10,000.00
58	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	20,000.00	
59	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	3,291.73	3,291.73
60	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Yinchuan New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	9,190.00	
61	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	507.83	
62	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	15,000.00	15,000.00
63	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	6,000.00	
64	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	5,700.00	
65	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Qingxin Tansu Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	200.00	200.00
66	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Science and Technology Engineering Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	3,000.00	3,000.00
67	SPIC Ningxia Energy Aluminum	Qingtongxia Aluminium Co., Ltd.	State-controlled	No	Joint liability	Loan guarantee	Mortgage	20,000.00	20,000.00

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
	Co., Ltd.				guarantee				
68	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	11,700.00	
69	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	992.00	992.00
70	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	1,010.00	1,010.00
71	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	68,400.00	
72	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminium Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	18,000.00	18,000.00
73	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	334.35	
74	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	167.17	
75	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	4,000.00	4,000.00
76	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	3,426.13	3,426.13
77	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Science and Technology Engineering Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	3,000.00	3,000.00
78	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	13,500.00	
79	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminium Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	15,000.00	15,000.00

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
80	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	5,000.00	5,000.00
81	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	5,000.00	5,000.00
82	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminium Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	12,000.00	12,000.00
83	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminium Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Mortgage	5,000.00	5,000.00
84	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	SPIC Ningxia Energy Aluminum Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	45,000.00	45,000.00
85	SPIC Sichuan Electric Power Co., Ltd.	Xiangcheng Xinneng PV Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	13,550.00	
86	SPIC Sichuan Electric Power Co., Ltd.	SPIC Sichuan Aba New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,900.00	
87	SPIC Sichuan Electric Power Co., Ltd.	Xiangcheng Xinneng PV Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	8,050.00	
88	SPIC Sichuan Electric Power Co., Ltd.	Jinchuan Sawajiao PV Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	12,942.00	
89	SPIC Sichuan Electric Power Co., Ltd.	Sichuan Wisdom Xinneng Electric Sales Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	800.00	
90	SPIC Sichuan Electric Power Co., Ltd.	Xiangcheng Xinneng PV Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	13,375.00	
91	SPIC Inner Mongolia Energy Co., Ltd.	Jinzhou-Chifeng Railway Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	15,000.00	15,000.00

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
92	SPIC Inner Mongolia Energy Co., Ltd.	Head Office of Tongliao Power Generation Plant	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	20,000.00	20,000.00
93	SPIC Inner Mongolia Baiyinhua Coal Power Co., Ltd.	Jingmen Xiehe Wind Power Generation Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	1,050.00	
94	SPIC Inner Mongolia Baiyinhua Coal Power Co., Ltd.	Jingmen Xiehe Wind Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	1,050.00	
95	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Other guarantee	Without counter guarantee	14,000.00	
96	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Other guarantee	Without counter guarantee	21,800.00	
97	SPIC Yunnan International Power Investment Co., Ltd.	Lvchun Xinyuan Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Other guarantee	Without counter guarantee	10,000.00	
98	SPIC Yunnan International Power Investment Co., Ltd.	Lulianghui Kuntianhe Solar Power Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Other guarantee	Without counter guarantee	11,947.40	
99	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Niulan River Hydroelectric Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	20,000.00	
100	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Niulan River Hydroelectric Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	67,177.37	

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
101	SPIC Yunnan International Power Investment Co., Ltd.	Yiliang Dianneng Luoze River Basin Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Other guarantee	Without counter guarantee	10,350.00	
102	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Chuxiong Hydropower Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Other guarantee	Without counter guarantee	4,600.00	
103	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng (Group) Holding Co., Ltd., Pingbian Branch	State-controlled	No	Joint liability guarantee	Other guarantee	Without counter guarantee	9,400.00	
104	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Huize Niulan River Hydroelectric Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	28,790.30	
105	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Zhongyundian New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Other guarantee	Without counter guarantee	8,000.00	
106	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Luoze River Basin Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	20,000.00	
107	State Power Investment Corporation Limited	SPIC Inner Mongolia Baiyinhua Coal Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	70,000.00	
108	State Power Investment Corporation Limited	China United Gas Turbine Technology Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	12,000.00	12,000.00
109	State Power Investment Corporation Limited	SPIC Inner Mongolia Baiyinhua Coal Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	94,800.00	

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
110	State Power Investment Corporation Limited	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	159,000.00	
111	State Power Investment Corporation Limited	SPIC Zhengzhou Gas Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,397.00	
112	State Power Investment Corporation Limited	SPIC Nanyang Thermal Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	16,200.00	
113	State Power Investment Corporation Limited	SPIC Guizhou Zunyi Industry Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	38,910.00	
114	State Power Investment Corporation Limited	SPIC Guizhou Zunyi Industry Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	68,200.00	
115	State Power Investment Corporation Limited	SPIC Guizhou Zunyi Industry Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	107,000.00	
116	State Power Investment Corporation Limited	SPIC Shanxi Aluminum Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	60,000.00	
117	State Power Investment Corporation Limited	SPIC Shanxi Aluminum Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	120,000.00	
118	State Power Investment Corporation Limited	SPIC International Investment Development (Guinea) Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	1,563.07	1,563.07

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
119	State Power Investment Corporation Limited	SPIC International Investment Development (Guinea) Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	40,690.15	40,690.15
120	State Power Investment Corporation Limited	SPIC International Investment Development (Guinea) Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,710.31	10,710.31
121	State Power Investment Corporation Limited	SPIC International Investment Development (Guinea) Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,000.00	2,000.00
122	State Power Investment Corporation Limited	Guixi Power Generation Co., Ltd.	State-controlled	No	General guarantee	Loan guarantee	Without counter guarantee	3,680.00	
123	State Power Investment Corporation Limited	Sichuan Xingding Electric Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	48,400.00	
124	State Power Investment Corporation Limited	Jinzhou-Chifeng Railway Co., Ltd.	State-controlled	No	General guarantee	Loan guarantee	Without counter guarantee	92,218.75	
125	State Power Investment Corporation Limited	SPIC Yunnan International Power Investment Co., Ltd.	Wholly state-owned	No	General guarantee	Loan guarantee	Without counter guarantee	72,000.00	
126	State Power Investment Corporation Limited	Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	108,300.00	108,300.00
127	State Power Investment Corporation Limited	SPIC 2016 US DOLLAR BOND COMPANY LIMITED	Wholly state-owned	No	General guarantee	Loan guarantee	Without counter guarantee	618,276.40	

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
128	State Power Investment Corporation Limited	SPIC 2016 US DOLLAR BOND COMPANY LIMITED	Wholly state-owned	No	General guarantee	Loan guarantee	Without counter guarantee	206,092.13	
129	State Power Investment Corporation Limited	SPIC 2018 USD Senior Perpetual Bond Company Limited	Wholly state-owned	No	General guarantee	Loan guarantee	Without counter guarantee	343,486.89	
130	State Power Investment Corporation Limited	SPIC MTN COMPANY LTD	Wholly state-owned	No	General guarantee	Loan guarantee	Without counter guarantee	686,973.78	686,973.78
131	State Power Investment Corporation Limited	SPIC Pacific Hydro Pty Ltd	Wholly state-owned	No	General guarantee	Loan guarantee	Without counter guarantee	754,944.00	46,313.11
132	State Power Investment Corporation Limited	China United Gas Turbine Technology Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	3,960.00	3,960.00
133	State Power Investment Corporation Limited	China United Gas Turbine Technology Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,640.00	2,640.00
134	State Power Investment Corporation Limited	China United Gas Turbine Technology Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	50,820.00	50,820.00
135	State Power Investment Corporation Limited	China United Gas Turbine Technology Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	33,880.00	33,880.00
136	State Power Investment Corporation Limited	China United Gas Turbine Technology Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	12,200.00	12,200.00

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
137	Yunnan Dianneng (Group) Holding Co., Ltd.	Yunnan Dianneng Niulan River Hydroelectric Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	32,100.00	
138	Yunnan Dianneng (Group) Holding Co., Ltd.	Yunnan Dianneng Niulan River Hydroelectric Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	20,000.00	
139	Yunnan Dianneng (Group) Holding Co., Ltd.	Yunnan Dianneng Huize Niulan River Hydroelectric Development Co., Ltd.	State-controlled	No	General guarantee	Loan guarantee	Without counter guarantee	21,400.00	
140	Yunnan Dianneng (Group) Holding Co., Ltd.	Yunnan Dianneng Niulan River Hydroelectric Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Other guarantee	Without counter guarantee	46,600.00	
141	Yunnan Dianneng (Group) Holding Co., Ltd.	Yunnan Dianneng Si'nan River Hydropower Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	58,600.00	58,600.00
142	Yunnan Dianneng (Group) Holding Co., Ltd.	Yiliang Dianneng Luoze River Basin Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	8,000.00	
143	Yunnan Dianneng (Group) Holding Co., Ltd.	Yunnan Dianneng Niulan River Hydroelectric Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Other guarantee	Without counter guarantee	11,100.00	
144	Yunnan Dianneng (Group) Holding Co., Ltd.	Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	403.00	
145	China Power (Fujian) Power Development Co., Ltd.	Xiamen China Power PV Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	4,046.00	

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
146	China Power (Fujian) Power Development Co., Ltd.	Chongqing Meixi River Basin Hydropower Development Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	4,050.00	
147	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia Baiyinhua Mengdong Open-pit Coal Industry Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,900.00	10,900.00
148	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia Baiyinhua Mengdong Open-pit Coal Industry Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	7,100.00	7,100.00
149	SPIC Mengdong Energy Co., Ltd.	SPIC Inner Mongolia Baiyinhua Coal Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	
150	SPIC Mengdong Energy Co., Ltd.	SPIC Inner Mongolia Baiyinhua Coal Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	15,000.00	
151	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	4,555.00	4,555.00
152	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	10,000.00
153	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	5,445.00	5,445.00
154	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	20,000.00	20,000.00
155	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	20,000.00	20,000.00
156	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	10,000.00

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
157	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	10,000.00
158	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	10,000.00
159	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	10,000.00
160	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	10,000.00
161	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	8,000.00	8,000.00
162	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	10,000.00
163	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	10,000.00
164	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	7,000.00	7,000.00
165	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	10,000.00
166	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	10,000.00
167	China Power International Energy Investment Hainan Co., Ltd.	Jiangxi China Power Yineng Distributed Energy Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	533.47	
168	China Power International New Energy Holding Company Limited	Pingdingshan China Power Environmental Protection Power Generation Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	42,000.00	

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
169	China Power International New Energy Holding Company Limited	Bazhou China Power Environmental Protection Power Generation Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	11,185.34	
170	China Power International New Energy Holding Company Limited	Bazhou China Power Environmental Protection Power Generation Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	31,519.54	2,719.54
171	China Power International New Energy Holding Company Limited	Tieling China Power Environmental Protection Power Generation Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	13,532.10	2,932.10
172	China Power International New Energy Holding Company Limited	Beizhen China Power Environmental Protection Power Generation Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	7,390.66
173	China Power International New Energy Holding Company Limited	Shangqiu China Power Environmental Protection Power Generation Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	49,400.00	
174	China Power International New Energy Holding Company Limited	China Power Hongze Biomass Thermal Power Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	1,666.67	
175	China Power International New Energy Holding Company Limited	China Power Hongze Thermal Power Co., Ltd.	State-controlled	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	7,700.00	
176	China Power International Holding Limited	China Power Dafeng Wind Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	33,200.00	
177	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	6,000.00	6,000.00

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
178	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	1,600.00	
179	China Power International Development Limited	China Power (Pu'an) New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	9,946.00	9,946.00
180	China Power International Development Limited	China Power (Pu'an) New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	17,805.60	17,805.60
181	China Power International Development Limited	China Power (Pu'an) New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,967.60	2,967.60
182	China Power International Development Limited	China Power (Pu'an) New Energy Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,800.00	
183	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	23,500.00	
184	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	22,606.32	
185	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	20,867.37	
186	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	5,000.00	5,000.00

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
187	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	5,800.00	
188	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	4,000.00	4,000.00
189	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	5,000.00	5,000.00
190	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	3,000.00	3,000.00
191	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,000.00	2,000.00
192	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	10,000.00
193	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,000.00	
194	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	12,000.00	
195	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	8,000.00	

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
196	Shanghai Electric Power Co., Ltd.	SEP Solar Power Generation Co., Ltd. in Tsukuba, Ibaraki-ken	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	69,559.60	69,559.60
197	Shanghai Electric Power Co., Ltd.	Turkey EMBA Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	39,149.40	39,149.40
	II. For entities outside the Group							153,061.86	86,302.50
1	SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	9,000.00	9,000.00
2	SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	18,000.00	18,000.00
3	SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	12,000.00	12,000.00
4	SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	13,500.00	13,500.00
5	SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	9,000.00	9,000.00
6	SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	12,000.00	12,000.00
7	SPIC Chongqing Electric Power Co., Ltd.	Chongqing Songgai Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	245.00	
8	SPIC Chongqing Electric Power Co., Ltd.	Chongqing Songgai Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	3,266.67	
9	SPIC Chongqing Electric Power Co., Ltd.	Chongqing Songgai Power Generation Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,780.00	
10	SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	12,802.50	12,802.50

No.	Guarantor	Guarantee			Method of guarantee	Type of guarantee	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2020
		Item	Nature of enterprise	A listed company or not					
11	SPIC Chongqing Electric Power Co., Ltd.	Chongqing Guolong Electric Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	1,239.70	
12	SPIC Chongqing Electric Power Co., Ltd.	Guizhou Zunyi Tuanxi Lvxiang Wind Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	24,246.08	
13	SPIC Chongqing Electric Power Co., Ltd.	Chongqing Guolong Electric Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,130.00	
14	SPIC Guizhou Jinyuan Co., Ltd.	Huangtong-Zhijin Railway Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	6,058.10	
15	SPIC Northeast Energy Technology Co., Ltd.	Liaoning SPIC Huida Power Technology Co., Ltd.	Private	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	1,963.81	
16	Shanghai Electric Power Co., Ltd.	Shanghai Friendship Shipping Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,000.00	
17	Shanghai Electric Power Co., Ltd.	Shanghai Friendship Shipping Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	1,500.00	
18	Shanghai Electric Power Co., Ltd.	Shanghai Friendship Shipping Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,000.00	
19	Shanghai Electric Power Co., Ltd.	Shanghai Friendship Shipping Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,000.00	
20	Shanghai Electric Power Co., Ltd.	Zhejiang Shangdian Tiantai Mountain Wind Power Co., Ltd.	State-controlled	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	850.00	
21	State Power Investment Corporation Limited	Chongqing Energy Investment Group Co., Ltd.	State-controlled	No	General guarantee	Loan guarantee	Without counter guarantee	8,480.00	

9.2 Contingent assets
None.

9.3 Other contingencies required to be explained
None.

10 Post balance sheet events
There were no non-adjusting post balance sheet events required to be disclosed by the Company.

11 Related relationships and related transactions
11.1 Parent company of the Company
The Company is a solely state-owned enterprise, and the ultimate controller of the Company is the State-owned Assets Supervision and Administration Commission of the State Council.

11.2 Subsidiaries of the Company
See Note 7 Business combination and consolidated financial statements for details.

11.3 Joint ventures and associates of the Company
See Note 8.21 Long-term equity investments for details.

11.4 Other related parties of the Company

Other related party	Relationship with the Company
HLH	Associate of the Company's subsidiary
HLC	Associate of the Company's subsidiary
Changshu Binjiang Heat Co., Ltd.	Associate of the Company's subsidiary
Chuangdao (Shanghai) Intelligent Technology Co., Ltd.	Associate of the Company's subsidiary
Guizhou Zunyi Tuanxi Lvxiang Wind Power Co., Ltd.	Associate of the Company's subsidiary
SNPTC Zheneng Nuclear Energy Co., Ltd.	Associate of the Company's subsidiary
Nuclear Power Qinshan Associate Co., Ltd.	Associate of the Company's subsidiary
Huaneng Shidaobay Nuclear Power Co., Ltd.	Associate of the Company's subsidiary
Huaihu Coal & Power Co., Ltd.	Associate of the Company's subsidiary
Tianji Power Plant of Huaihu Coal & Power Co., Ltd.	Associate of the Company's subsidiary
Jiangsu Nuclear Power Co., Ltd.	Associate of the Company's subsidiary
Liaoning Hongyanhe Nuclear Power Co., Ltd.	Associate of the Company's subsidiary
Enemalta PLC	Associate of the Company's subsidiary
Inner Mongolia Zhongyou Huo Coal Oil Co., Ltd.	Associate of the Company's subsidiary
Qinshan Third Nuclear Power Co., Ltd.	Associate of the Company's subsidiary
Sanmen Nuclear Power Co., Ltd.	Associate of the Company's subsidiary
Shanghai Nuclear Equipment Testing and Verification Center Limited	Associate of the Company's subsidiary
Shanghai Shenergy Lingang CCGT Power Generation Co., Ltd.	Associate of the Company's subsidiary
Shanghai Petrochemical Equipment Inspection & Testing Co., Ltd.	Associate of the Company's subsidiary
Shanghai Waigaoqiao No.2 Power Generation Co. Ltd.	Associate of the Company's subsidiary
Shanghai Waigaoqiao No.3 Power Generation Co., Ltd.	Associate of the Company's subsidiary

Other related party	Relationship with the Company
Shanghai Wujing No.2 Power Generation Co., Ltd.	Associate of the Company's subsidiary
Shanghai Wujing Power Generation Co., Ltd.	Associate of the Company's subsidiary
Shanghai Friendship Shipping Co., Ltd.	Associate of the Company's subsidiary
Tongliao Electric Power Construction and Installation Co., Ltd.	Associate of the Company's subsidiary
Zhejiang Zheneng Guodian Investment Shengsi Offshore Wind Power Co., Ltd.	Associate of the Company's subsidiary
China Power Changshu Electricity Distribution Co., Ltd.	Associate of the Company's subsidiary
China Nuclear Baotou Nuclear Fuel Components Co., Ltd.	Associate of the Company's subsidiary
Chongqing Yuankang Environmental Protection Technology Co., Ltd.	Associate of the Company's subsidiary
SPIC Chongqing Baihe Electric Power Co., Ltd.	Associate of the Company's subsidiary
Chongqing Guolong Electric Power Co., Ltd.	Associate of the Company's subsidiary
Liaoning SPIC Huida Power Technology Co., Ltd.	Associate of the Company's subsidiary
Zhejiang Shangdian Tiantai Mountain Wind Power Co., Ltd.	Associate of the Company's subsidiary

11.5 Related transactions

11.5.1 With regard to subsidiaries where the control relationship exist and which have been included in the scope of the Company's consolidated financial statements, their mutual transactions and the transactions between the parent company and subsidiaries have been offset.

11.5.2 Purchase of goods/receipt of services

Related party	Content of related transactions	Pricing methods and decision-making procedures for related transactions	Year 2020		Year 2019	
			Amount	Proportion in similar transactions (%)	Amount	Proportion in similar transactions (%)
Huaihu Coal & Power Co., Ltd.	Purchase of goods	Market price/ similar transaction	1,425,563,694.40	0.67	1,456,286,648.23	0.68
Enemalta PLC	Purchase of goods		751,796,443.76	0.35	565,089,870.76	0.26
Inner Mongolia Zhongyou Huo Coal Oil Co., Ltd.	Purchase of goods		248,230,053.28	0.12	399,924,379.80	0.19
Shanghai Waigaoqiao No.3 Power Generation Co., Ltd.	Purchase of goods		34,150,108.27	0.02	5,854,110.67	
Tongliao Electric Power Construction and Installation Co., Ltd.	Receipt of services		21,071,268.69	0.01	56,556,780.12	0.03
Shanghai Friendship Shipping Co., Ltd.	Receipt of services		19,914,273.70	0.01	27,631,823.40	0.01
Shanghai Waigaoqiao No.2 Power Generation Co. Ltd.	Purchase of goods		11,391,450.64	0.01	2,196,195.62	
China Power Changshu Electricity Distribution Co., Ltd.	Receipt of services		8,866,508.48			
Zhejiang Zheneng Guodian Investment Shengsi Offshore Wind Power Co., Ltd.	Receipt of services		5,340,286.47			
Guizhou Zunyi Tuanxi Lvxiang Wind Power Co., Ltd.	Receipt of services		3,339,622.64		4,528,301.89	

Related party	Content of related transactions	Pricing methods and decision-making procedures for related transactions	Year 2020		Year 2019	
			Amount	Proportion in similar transactions (%)	Amount	Proportion in similar transactions (%)
HLC	Receipt of services		1,088,081.25		104,218.00	
HLH	Receipt of services		1,080,827.74		434,589.00	
Shanghai Wujing No.2 Power Generation Co., Ltd.	Purchase of goods		645,622.10			
Chongqing Yuankang Environmental Protection Technology Co., Ltd.	Receipt of services		599,811.30			
Shanghai Petrochemical Equipment Inspection & Testing Co., Ltd.	Receipt of services		435,030.19		126,120.00	
Shanghai Nuclear Equipment Testing and Verification Center Limited	Receipt of services	Market price/ similar transaction			62,100,000.00	0.03

11.5.3 Sales of goods/rendering of services

Related party	Content of related transactions	Pricing methods and decision-making procedures for related transactions	Year 2020		Year 2019	
			Amount	Proportion in similar transactions (%)	Amount	Proportion in similar transactions (%)
Sanmen Nuclear Power Co., Ltd.	Rendering of services	Market price/ similar transaction	1,178,798,885.81	0.42	1,550,319,661.25	0.57

Related party	Content of related transactions	Pricing methods and decision-making procedures for related transactions	Year 2020		Year 2019	
			Amount	Proportion in similar transactions (%)	Amount	Proportion in similar transactions (%)
Liaoning Hongyanhe Nuclear Power Co., Ltd.	Sales of goods		812,862,767.54	0.29	348,886,320.92	0.13
Shanghai Wujing Power Generation Co., Ltd.	Sales of goods		437,022,645.51	0.16	394,643,117.19	0.14
Changshu Binjiang Heat Co., Ltd.	Sales of goods		389,266,456.07	0.14	394,493,634.00	0.14
Tianji Power Plant of Huaihu Coal & Power Co., Ltd.	Rendering of services		30,962,735.85	0.01	31,814,622.63	0.01
Jiangsu Nuclear Power Co., Ltd.	Rendering of services		30,512,210.07	0.01	15,577,479.36	0.01
China Nuclear Baotou Nuclear Fuel Components Co., Ltd.	Rendering of services		30,310,177.98	0.01	30,431,474.93	0.01
Huaihu Coal & Power Co., Ltd.	Rendering of services		28,175,350.62	0.01	39,237,833.35	0.01
Shanghai Waigaoqiao No.3 Power Generation Co., Ltd.	Rendering of services		27,690,065.92	0.01	29,327,160.79	0.01
Qinshan Third Nuclear Power Co., Ltd.	Rendering of services	Market price/ similar transaction	23,069,018.03	0.01	7,634,526.87	
Nuclear Power Qinshan Associate Co., Ltd.	Rendering of services		15,672,415.74	0.01	15,577,374.55	0.01
Enemalta PLC	Rendering of services		13,090,659.01		15,428,483.34	0.01
Shanghai Waigaoqiao No.2 Power Generation Co. Ltd.	Rendering of services		8,861,074.54		14,861,284.86	0.01

Related party	Content of related transactions	Pricing methods and decision-making procedures for related transactions	Year 2020		Year 2019	
			Amount	Proportion in similar transactions (%)	Amount	Proportion in similar transactions (%)
Shanghai Shenergy Lingang CCGT Power Generation Co., Ltd.	Rendering of services		3,168,127.55		3,198,018.58	
Huaneng Shidaobay Nuclear Power Co., Ltd.	Rendering of services		2,707,925.47			
Shanghai Wujing No.2 Power Generation Co., Ltd.	Rendering of services		2,567,520.80		2,834,764.16	
Inner Mongolia Zhongyou Huo Coal Oil Co., Ltd.	Rendering of services		1,691,961.57		887,238.10	
Tongliao Electric Power Construction and Installation Co., Ltd.	Sales of goods		1,581,117.02		194,933.09	
SNPTC Zheneng Nuclear Energy Co., Ltd.	Rendering of services		867,924.53			
Shanghai Petrochemical Equipment Inspection & Testing Co., Ltd.	Rendering of services		579,076.42		600,842.45	
HLC	Rendering of services		56,090.20		1,223,814.13	
HLH	Rendering of services		42,605.54		1,178,503.10	
Chuangdao (Shanghai) Intelligent Technology Co., Ltd.	Rendering of services		11,474.40		563,186.35	

11.5.4 Related-party guarantees

Unit: RMB ’0,000

Guarantor	Guaranteed party	Guaranteed amount	Guarantee starting date	Guarantee due date	Whether or not the guarantee performance has been completed
SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	9,000.00	2020-8-19	2023-8-18	No
SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	18,000.00	2020-7-29	2023-7-28	No
SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	12,000.00	2020-9-15	2023-9-14	No
SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	13,500.00	2020-10-30	2023-10-26	No
SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	9,000.00	2020-11-27	2023-11-26	No
SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	12,000.00	2020-3-8	2021-3-7	No
SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	12,802.50	2020-10-27	2023-10-22	No
SPIC Chongqing Electric Power Co., Ltd.	Chongqing Guolong Electric Power Co., Ltd.	1,239.70	2020-12-29	2021-6-30	No
SPIC Chongqing Electric Power Co., Ltd.	Guizhou Zunyi Tuanxi Lvxiang Wind Power Co., Ltd.	24,246.08	2018-11-9	2021-11-8	No
SPIC Chongqing Electric Power Co., Ltd.	Chongqing Guolong Electric Power Co., Ltd.	2,130.00	2020-12-25	2022-12-20	No

Guarantor	Guaranteed party	Guaranteed amount	Guarantee starting date	Guarantee due date	Whether or not the guarantee performance has been completed
SPIC Northeast Energy Technology Co., Ltd.	Liaoning SPIC Huida Power Technology Co., Ltd.	1,963.81	2018-8-14	2022-8-14	No
Shanghai Electric Power Co., Ltd.	Shanghai Friendship Shipping Co., Ltd.	2,000.00	2020-4-28	2021-2-19	No
Shanghai Electric Power Co., Ltd.	Shanghai Friendship Shipping Co., Ltd.	1,500.00	2020-10-19	2021-10-18	No
Shanghai Electric Power Co., Ltd.	Shanghai Friendship Shipping Co., Ltd.	2,000.00	2020-8-28	2021-8-27	No
Shanghai Electric Power Co., Ltd.	Shanghai Friendship Shipping Co., Ltd.	2,000.00	2020-11-9	2021-11-6	No
Shanghai Electric Power Co., Ltd.	Zhejiang Shangdian Tiantai Mountain Wind Power Co., Ltd.	850.00	2008-12-17	2021-12-15	No
SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	9,000.00	2020-8-19	2023-8-18	No
SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	18,000.00	2020-7-29	2023-7-28	No

11.6 Receivables from and payables to related parties

11.6.1 The Company's receivables from related parties

Project name	Related party	Balance as at December 31, 2020		Balance as at January 1, 2020		Terms and conditions	Obtained the guarantee or not
		Book balance	Provision for bad debts	Book balance	Provision for bad debts		
Accounts receivable							
	HLH	385,868,959.74		450,954,770.47		None	No
	HLC	962,168,026.97		1,028,838,431.07		None	No
	Changshu Binjiang Heat Co., Ltd.	38,108,635.50		28,246,408.00		None	No
	Chuangdao (Shanghai) Intelligent Technology Co., Ltd.	19,578.35		19,578.35		None	No

Project name	Related party	Balance as at December 31, 2020		Balance as at January 1, 2020		Terms and conditions	Obtained the guarantee or not
		Book balance	Provision for bad debts	Book balance	Provision for bad debts		
	Nuclear Power Qinshan Associate Co., Ltd.	1,364,459.56		7,032,139.00		None	No
	Huaihu Coal & Power Co., Ltd.	3,412,425.00		14,768,877.20		None	No
	Tianji Power Plant of Huaihu Coal & Power Co., Ltd.	2,219,500.00		3,740,000.00		None	No
	Jilin Boda Biochemical Co., Ltd.			86,160,897.61		None	No
	Jiangsu Nuclear Power Co., Ltd.	3,098,821.40		49,148.25		None	No
	Liaoning Hongyanhe Nuclear Power Co., Ltd.	7,739,488.62		87,097.68		None	No
	Enemalta PLC	72,247,687.00		87,128,792.49		None	No
	Qinshan Third Nuclear Power Co., Ltd.	3,495,465.60		1,445,200.27		None	No
	Sanmen Nuclear Power Co., Ltd.	8,869,498.50		11,298,139.00		None	No
	Shanghai Shenergy Lingang CCGT Power Generation Co., Ltd.	153,306.90		365,535.64		None	No
	Shanghai Waigaoqiao No.2 Power Generation Co. Ltd.	2,815,000.00		1,499,167.24		None	No
	Shanghai Waigaoqiao No.3 Power Generation Co., Ltd.	9,206,526.44	301,812.46	7,166,219.69	301,812.46	None	No
	Shanghai Wujing No.2 Power Generation Co., Ltd.	1,022,430.57		46,900.00		None	No
	Shanghai Wujing Power Generation Co., Ltd.	782,015,943.29		844,971,564.20		None	No
	Tongliao Electric Power Construction and Installation Co., Ltd.	1,592,967.02		6,461,247.42		None	No
	China Nuclear Baotou Nuclear Fuel Components Co., Ltd.	14,555,461.00		10,000,000.00		None	No
Advances to suppliers							
	Inner Mongolia Zhongyou Huo Coal Oil Co., Ltd.	5,463,103.34		51,854,523.70		None	No
	Jarud Banner Tiejin Transportation Co., Ltd.	23,862,495.53		1,013,294.99		None	No
Other receivables							

Project name	Related party	Balance as at December 31, 2020		Balance as at January 1, 2020		Terms and conditions	Obtained the guarantee or not
		Book balance	Provision for bad debts	Book balance	Provision for bad debts		
	SPIC Zhoushan Smart Ocean Energy Technology Co., Ltd.	700,000.00				None	No
	Jiangxi Lulan Technology Co., Ltd.	3,540,277.80				None	No
	Shanghai Waigaoqiao No.3 Power Generation Co., Ltd.	389,900.00		389,900.00		None	No
	Shanghai Wujing Power Generation Co., Ltd.	705,418.65		416,835.41		None	No
	Tongliao Electric Power Construction and Installation Co., Ltd.	19,291,421.86	4,428,224.37	14,391,421.86	4,428,224.37	None	No

11.6.2 The Company's payables to related parties

Project name	Related party	Balance as at December 31, 2020	Balance as at January 1, 2020	Terms and conditions	Provided the guarantee or not
Accounts payable					
	Huaihu Coal & Power Co., Ltd.	118,513,157.34	168,589,023.52	None	No
	Enemalta PLC		22,792,870.19	None	No
	Shanghai Petrochemical Equipment Inspection & Testing Co., Ltd.	59,200.00	4,500.00	None	No
	Tongliao Electric Power Construction and Installation Co., Ltd.	14,670,982.22	15,532,625.62	None	No
	Zhongji Guoda Power Technology Jiangsu Co., Ltd.	5,937,421.60	4,764,826.45	None	No
	Chongqing Yuankang Environmental Protection Technology Co., Ltd.	635,800.00		None	No
	Shanghai Friendship Shipping Co., Ltd.	19,914,273.70	863,092.02	None	No
Advances from customers					
	Sanmen Nuclear Power Co., Ltd.	174,448,201.37	194,982,549.18	None	No

12 Information conducive to the assessment by the user of the financial statements on the target, policies and procedures of enterprise management capital

None.

13 Notes to main items of the parent company's financial statements

13.1 Accounts receivable

13.1.1 Disclosure of accounts receivable by category

The parent company has not implemented the new standards for financial instruments

Category	Balance as at December 31, 2020					Balance as at January 1, 2020				
	Book balance		Provision for bad debts		Book value	Book balance		Provision for bad debts		Book value
	Amount	Proportion (%)	Amount	Proportion of provision (%)		Amount	Proportion (%)	Amount	Proportion of provision (%)	
Accounts receivable with individually significant amount and individual provision for bad debts										
Accounts receivable with provision for bad debts made by portfolio with credit risk characteristics	2,128,426,295.83	100.00			2,128,426,295.83	2,091,752,142.31	99.95			2,091,752,142.31
Accounts receivable with individually insignificant amount and individual provision for bad debts						1,052,671.00	0.05	250,000.00	23.75	802,671.00
Total	2,128,426,295.83	100.00			2,128,426,295.83	2,092,804,813.31	100.00	250,000.00		2,092,554,813.31

(1) Accounts receivable with provision for bad debts made by portfolios with credit risk characteristics

1) Accounts receivable with the provision for bad debts made by the aging analysis method

Aging	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance		Provision for bad debts	Book balance		Provision for bad debts
	Amount	Proportion (%)		Amount	Proportion (%)	
Within 1 year (including 1 year)	312,301,699.41	100.00		85,698,662.09	100.00	
1 - 2 years						
2 - 3 years						
Over 3 years						
Total	312,301,699.41	100.00		85,698,662.09	100.00	

2) Accounts receivable with provision for bad debts made by other portfolio methods

Portfolio name	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance	Proportion of provision (%)	Provision for bad debts	Book balance	Proportion of provision (%)	Provision for bad debts
Risk-free portfolio	1,816,124,596.42			2,006,053,480.22		
Total	1,816,124,596.42			2,006,053,480.22		

13.1.2 Top 5 of accounts receivable as at December 31, 2020, presented by debtor

Debtor	Book balance	Proportion in total accounts receivable (%)	Provision for bad debts
CPI Nuclear Power Co., Ltd.	288,369,188.88	13.55	
CPI Power Engineering Co., Ltd.	263,307,647.17	12.37	
Qinghai Huanghe Hydropower Development Co. Ltd. Gonghe Wind Power Generation Branch	90,157,413.37	4.24	
CPI Xinjiang Energy Chemical Group Hami Co., Ltd.	80,682,401.82	3.79	
Qinghai Huangdian Gonghe Photovoltaic Power Generation Co., Ltd.	68,922,269.23	3.24	

Debtor	Book balance	Proportion in total accounts receivable (%)	Provision for bad debts
Total	791,438,920.47	37.19	

13.2 Other receivables

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Interest receivable	3,967,651.52	8,562,990.28
Dividends receivable	1,772,791,701.58	2,088,288,497.16
Other receivables	5,216,379,058.18	3,889,454,142.35
Total	6,993,138,411.28	5,986,305,629.79

13.2.1 Interest receivable

(1) Classification of interest receivable

Item	Balance as at December 31, 2020	Balance as at January 1, 2020
Entrusted loans	3,967,651.52	8,562,990.28
Total	3,967,651.52	8,562,990.28

13.2.2 Dividends receivable

Project	Balance as at December 31, 2020	Balance as at January 1, 2020	Reason for non-recovery	Whether the impairment exists or not and the judgment basis
Dividends receivable with aging within one year	354,055,061.34	916,785,790.99		
Including: (1) International Finance (Hong Kong) Company Limited	57,137,900.00		Not paid temporarily	No/Subsidiary
(2) China Power International Holding Limited	296,917,161.34		Not paid temporarily	No/Subsidiary
(3) State Nuclear Capital Holdings Co., Ltd.		115,519,921.88	Not paid temporarily	No/Subsidiary
(4) SPIC Capital Holding Co., Ltd.		801,265,869.11	Not paid temporarily	No/Subsidiary

Project	Balance as at December 31, 2020	Balance as at January 1, 2020	Reason for non-recovery	Whether the impairment exists or not and the judgment basis
Dividends receivable with the aging of over one year	1,418,736,640.24	1,171,502,706.17		
Including: (1) State Nuclear Capital Holdings Co., Ltd.	115,519,921.88		Not paid temporarily	No/Subsidiary
(2) SPIC Capital Holding Co., Ltd.	131,714,012.19		Not paid temporarily	No/Subsidiary
(3) State Nuclear Power Technology Corporation	187,206,132.02	187,206,132.02	Not paid temporarily	No/Subsidiary
(4) CPI Power Engineering Co., Ltd.	189,817,672.03	189,817,672.03	Not paid temporarily	No/Subsidiary
(5) CPI Nuclear Power Co., Ltd.	794,478,902.12	794,478,902.12	Not paid temporarily	No/Subsidiary
Total	1,772,791,701.58	2,088,288,497.16		

13.2.3 Other receivables

(1) Disclosure of other receivables by category

The parent company has not implemented the new standards for financial instruments

Category	Balance as at December 31, 2020					Balance as at January 1, 2020				
	Book balance		Provision for bad debts		Book value	Book balance		Provision for bad debts		Book value
	Amount	Proportion (%)	Amount	Proportion (%)		Amount	Proportion (%)	Amount	Proportion (%)	
Other receivables with individually significant amount and individual provision for bad debts	29,637,307.99	0.57	2,963,730.80	10.00	26,673,577.19					
Other receivables with provision for bad debts made by portfolio with credit risk characteristics	5,189,705,480.99	99.40			5,189,705,480.99	3,889,454,142.35	99.96			3,889,454,142.35
Other receivables with individually insignificant amount and individual provision for bad debts	1,500,000.00	0.03	1,500,000.00	100.00		1,500,000.00	0.04	1,500,000.00	100.00	
Total	5,220,842,788.98	100.00	4,463,730.80		5,216,379,058.18	3,890,954,142.35	100.00	1,500,000.00		3,889,454,142.35

1) Other receivables with individually significant amount and individual provision for bad debts as at December 31, 2020

Debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
Lanzhou New Area Thermal Power Branch Company of Gansu Huanghe Hydropower Co., Ltd.	29,637,307.99	2,963,730.80	Within 1 year	10.00	Transferred to Huaneng in June 2020, and changed to assets outside the Group from the Group current account
Total	29,637,307.99	2,963,730.80			

2) Other receivables with provision for bad debts made by portfolio with credit risk characteristics

Other receivables with provision for bad debts made by other portfolios

Portfolio name	Balance as at December 31, 2020			Balance as at January 1, 2020		
	Book balance	Proportion of provision (%)	Provision for bad debts	Book balance	Proportion of provision (%)	Provision for bad debts
Risk-free portfolio	5,189,705,480.99			3,889,454,142.35		
Total	5,189,705,480.99			3,889,454,142.35		

3) Other receivables with individually insignificant amount and individual provision for bad debts as at December 31, 2020

Debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
Anhui Electric Power Company	1,500,000.00	1,500,000.00	Over 5 years	100.00	Expected to be irrecoverable
Total	1,500,000.00	1,500,000.00			

(2) Top 5 of other receivables as at December 31, 2020, presented by debtor

Debtor	Nature	Book balance	Aging	Proportion in total other receivables (%)	Provision for bad debts
Shanghai SEP Xinyuan Enterprise Development Co., Ltd.	Current account	1,014,034,200.40	4 - 5 years	19.42	
International Finance (Hong Kong) Company Limited	Current account	350,206,178.73	1 - 2 years	6.71	
SPIC Huanghe Hydropower Development Co., Ltd.	Current account	308,951,506.50	1 - 2 years	5.92	

Debtor	Nature	Book balance	Aging	Proportion in total other receivables (%)	Provision for bad debts
SPIC Jiangxi Electric Power Co., Ltd.	Current account	207,349,783.14	2 - 3 years	3.97	
SPIC Research Institute of Science and Technology	Current account	144,359,500.00	Within 1 year or 1 - 2 years	2.77	
Total		2,024,901,168.77		38.79	

13.3 Long-term equity investments

13.3.1 Classification of long-term equity investments

Project	Balance as at January 1, 2020	Increase in 2020	Decrease in 2020	Balance as at December 31, 2020
Investments in subsidiaries	158,480,275,174.02	17,447,970,659.86	7,699,804,825.76	168,228,441,008.12
Investments in joint ventures				
Investments in associates		80,004,667.38		80,004,667.38
Sub-total	158,480,275,174.02	17,527,975,327.24	7,699,804,825.76	168,308,445,675.50
Less: provision for impairment of long-term equity investments				
Total	158,480,275,174.02	17,527,975,327.24	7,699,804,825.76	168,308,445,675.50

13.3.2 Details of long-term equity investments

Investee	Investment cost	Balance as at January 1, 2020	Increase/decrease in 2020								Balance as at December 31, 2020	Balance of provision for impairment as at December 31, 2020
			Additional investment	Negative investment	Profit or loss on investments recognized by the equity method	Adjustment to other comprehensive income	Other changes in equity	Cash dividends or profits declared to be distributed	Provision for impairment made	Others		
Total	168,442,222,809.64	158,480,275,174.02	17,498,970,659.86	7,699,804,825.76	29,004,667.38						168,308,445,675.50	
1. Subsidiaries	168,391,222,809.64	158,480,275,174.02	17,447,970,659.86	7,699,804,825.76							168,228,441,008.12	
SPIC Northeast Electric Power Co., Ltd.	12,725,591,395.97	12,315,612,345.05	409,979,050.92								12,725,591,395.97	
SPIC Inner Mongolia Energy Co., Ltd.	12,042,514,119.64	4,596,619,618.95	7,445,894,500.69								12,042,514,119.64	
China Power International Holding Limited	9,741,546,407.16	9,741,546,407.16									9,741,546,407.16	
SPIC Henan Electric Power Co., Ltd.	9,404,629,649.69	9,413,403,806.41									9,413,403,806.41	
SPIC Aluminum & Power Investment Co., Ltd.	9,224,048,000.00	9,224,048,000.00									9,224,048,000.00	
SPIC Chongqing Electric Power Co., Ltd.	4,445,888,114.59	4,432,432,989.52	13,455,125.07								4,445,888,114.59	
SPIC Jilin Energy Investment Co., Ltd.	3,598,563,396.02	3,598,563,396.02									3,598,563,396.02	
SPIC Yunnan International Power Investment Co., Ltd.	3,556,837,255.82	3,511,837,255.82	45,000,000.00								3,556,837,255.82	
SPIC Sichuan Electric Power Co., Ltd.	2,587,252,400.00	2,587,252,400.00									2,587,252,400.00	
SPIC Asset Management Co., Ltd.	1,866,494,989.03	1,174,234,549.00	692,260,440.03								1,866,494,989.03	

Investee	Investment cost	Balance as at January 1, 2020	Increase/decrease in 2020								Balance as at December 31, 2020	Balance of provision for impairment as at December 31, 2020
			Additional investment	Negative investment	Profit or loss on investments recognized by the equity method	Adjustment to other comprehensive income	Other changes in equity	Cash dividends or profits declared to be distributed	Provision for impairment made	Others		
SPIC Hebei Electric Power Co., Ltd.	1,767,314,291.09	1,767,314,291.09									1,767,314,291.09	
SPIC International Finance (Hong Kong) Company Limited	814,464,700.00	814,464,700.00									814,464,700.00	
SPIC Heilongjiang New Energy Co., Ltd.	379,177,200.00	379,177,200.00	61,170,000.00								440,347,200.00	
SPIC Fund Management Co., Ltd.	320,000,000.00	190,000,000.00	130,000,000.00								320,000,000.00	
China Power Complete Equipment Co., Ltd	302,062,146.76	302,062,146.76									302,062,146.76	
SPIC Overseas Investment Development Corporation	237,500,000.00	282,500,000.00		45,000,000.00							237,500,000.00	
SPIC Heilongjiang Lvtuo New Energy Co., Ltd.	227,150,000.00	227,150,000.00	159,430,000.00								386,580,000.00	
SPIC Shouyang Clean Energy Co., Ltd.	128,000,000.00	128,000,000.00									128,000,000.00	
CPI (Shanghai) Aluminum Co., Ltd.	100,000,000.00	100,000,000.00									100,000,000.00	
SPIC Hainan New Energy Investment Co., Ltd.	71,162,000.00		71,162,000.00								71,162,000.00	
SPIC Shanxi Clean Energy Co., Ltd.	67,900,000.00	2,000,000.00	65,900,000.00								67,900,000.00	

Investee	Investment cost	Balance as at January 1, 2020	Increase/decrease in 2020								Balance as at December 31, 2020	Balance of provision for impairment as at December 31, 2020
			Additional investment	Negative investment	Profit or loss on investments recognized by the equity method	Adjustment to other comprehensive income	Other changes in equity	Cash dividends or profits declared to be distributed	Provision for impairment made	Others		
China Power Investment Co., Ltd.	58,295,451.00	58,295,451.00									58,295,451.00	
SPIC Xiong'an Energy Co., Ltd.	20,000,000.00	20,000,000.00									20,000,000.00	
SPIC Fujian New Energy Co., Ltd.	155,455,200.00	155,455,200.00		155,455,200.00								
SPIC Pingtan Energy Co., Ltd.	40,000,000.00	40,000,000.00		40,000,000.00								
State Nuclear Power Technology Corporation	37,947,527,344.14	37,201,991,018.14	745,536,326.00								37,947,527,344.14	
SPIC Huanghe Hydropower Development Co., Ltd.	12,516,899,846.19	6,423,819,843.44	6,093,080,002.75								12,516,899,846.19	
SPIC Dongfang New Energy Corporation	10,541,911,700.00	10,541,911,700.00									10,541,911,700.00	
Shanghai Electric Power Co., Ltd.	5,918,416,521.36	5,530,770,495.20	387,646,026.16								5,918,416,521.36	
SPIC Jiangxi Electric Power Co., Ltd.	4,924,521,445.36	4,727,820,687.12									4,727,820,687.12	
SPIC Xinjiang Energy and Chemical Industry Co., Ltd.	3,453,040,000.00	3,453,040,000.00									3,453,040,000.00	
SPIC Guizhou Jinyuan Co., Ltd.	3,193,120,000.00	3,193,120,000.00									3,193,120,000.00	
SPIC Beijing Electric Power Co., Ltd.	3,001,790,829.85	3,001,790,829.85									3,001,790,829.85	
SPIC Finance Co., Ltd.	2,564,813,810.14	2,564,813,810.14									2,564,813,810.14	

Investee	Investment cost	Balance as at January 1, 2020	Increase/decrease in 2020								Balance as at December 31, 2020	Balance of provision for impairment as at December 31, 2020
			Additional investment	Negative investment	Profit or loss on investments recognized by the equity method	Adjustment to other comprehensive income	Other changes in equity	Cash dividends or profits declared to be distributed	Provision for impairment made	Others		
SPIC Mengdong Energy Co., Ltd.	2,295,126,330.76	2,295,126,330.76									2,295,126,330.76	
Guizhou Xidian Power Co., Ltd.	2,127,970,125.97	2,127,970,125.97									2,127,970,125.97	
SPIC Yuanda Environmental Protection Co., Ltd.	1,835,115,468.33	1,835,115,468.33									1,835,115,468.33	
Zhongdian United Heavy-duty Gas Turbine Technology Co., Ltd.	1,161,600,000.00	704,000,000.00	457,600,000.00								1,161,600,000.00	
State Nuclear Capital Holdings Co., Ltd.	883,813,821.47	883,813,821.47									883,813,821.47	
SPIC Research Institute of Science and Technology	733,558,872.60	733,558,872.60									733,558,872.60	
Jilin Electric Power Co., Ltd.	455,999,935.65	455,999,935.65									455,999,935.65	
SPIC Information Technology Co., Ltd.	300,740,252.81	234,292,852.81	66,447,400.00								300,740,252.81	
Jiaxing Rongneng Energy New Technology Investment Partnership (Limited Partnership)	50,000,000.00	50,000,000.00									50,000,000.00	
Hunan Integrated Intelligent Energy Co., Ltd.	50,000,000.00		50,000,000.00								50,000,000.00	

Investee	Investment cost	Balance as at January 1, 2020	Increase/decrease in 2020								Balance as at December 31, 2020	Balance of provision for impairment as at December 31, 2020
			Additional investment	Negative investment	Profit or loss on investments recognized by the equity method	Adjustment to other comprehensive income	Other changes in equity	Cash dividends or profits declared to be distributed	Provision for impairment made	Others		
SPIC Integrated Intelligent Energy Technology Co., Ltd.	94,200,000.00		94,200,000.00								94,200,000.00	
SPIC Fujian Electric Power Investment Co., Ltd.	252,443,307.20		252,443,307.20								252,443,307.20	
SPIC Technology Innovation Equity Investment Fund (Tianjin) Partnership (Limited Partnership)	100,000,000.00		100,000,000.00								100,000,000.00	
SPIC Sanxin Industry Equity Investment Fund (Tianjin) Partnership (Limited Partnership)	78,945,200.00		78,945,200.00								78,945,200.00	
SPIC Hydrogen Energy Technology Development Co., Ltd.	27,821,281.04		27,821,281.04								27,821,281.04	
SPIC Logistics Co., Ltd.		5,866,039,625.76		5,866,039,625.76								
Inner Mongolia Daban Power Generation Co., Ltd.		1,481,720,000.00		1,481,720,000.00								
Tongliao No. 2 Power Generation Co., Ltd.		111,590,000.00		111,590,000.00								
2. Associates	51,000,000.00		51,000,000.00		29,004,667.38						80,004,667.38	

Investee	Investment cost	Balance as at January 1, 2020	Increase/decrease in 2020								Balance as at December 31, 2020	Balance of provision for impairment as at December 31, 2020
			Additional investment	Negative investment	Profit or loss on investments recognized by the equity method	Adjustment to other comprehensive income	Other changes in equity	Cash dividends or profits declared to be distributed	Provision for impairment made	Others		
Zhongneng Ronghe Intelligence Technology Co., Ltd.	51,000,000.00		51,000,000.00		29,004,667.38						80,004,667.38	

13.3.3 Summary of the information on insignificant joint ventures and associates

Project	Year 2020	Year 2019
Joint ventures:		
Total book value of investment		
Total amounts of the following items calculated at shareholding ratio		
Net profit		
Other comprehensive income		
Total comprehensive income		
Associates:		
Total book value of investment	80,004,667.38	
Total amounts of the following items calculated at shareholding ratio		
Net profit	78,988,745.59	
Other comprehensive income		
Total comprehensive income	78,988,745.59	

13.4 Operating revenue and operating costs

Item	Year 2020		Year 2019	
	Revenue	Cost	Revenue	Cost
1. Sub-total of primary business	4,942,189,281.67	4,687,770,647.77	3,563,328,757.47	3,274,018,483.65
Electric power and service industry	4,772,030,509.13	4,629,681,361.04	3,248,852,544.67	3,136,062,039.53
Finance	170,158,772.54	58,089,286.73	314,476,212.80	137,956,444.12
2. Sub-total of other businesses	584,256,599.91	30,868,645.18	180,641,482.12	113,597,470.36
Power Marketing service expenses	364,852,307.26			
Employee training			71,430,850.98	81,832,541.38
Lease-out of investment properties	90,873,859.27		38,594,073.69	31,764,928.98
Service agreement payment	65,330,000.25			
Fuel purchase service expenses	43,851,295.30			
Land lease	17,579,999.99	30,868,645.18		
Others	1,769,137.84		70,616,557.45	
Total	5,526,445,881.58	4,718,639,292.95	3,743,970,239.59	3,387,615,954.01

13.5 Investment income

Sources of income from investments	Year 2020	Year 2019
Long-term equity investment income calculated under the cost method	7,399,377,010.55	2,548,303,325.41
Long-term equity investment income calculated under the equity method	29,004,667.38	1,419,782.40
Investment income from disposal of long-term equity investments		6,995,026,866.16
Investment income from available-for-sale financial assets (Applicable for the Old Standards)	7,200,000.00	7,200,000.00
Investment income from disposal of available-for-sale financial assets (Applicable for the Old Standards)	4,144,948.28	
Others	1,405,251,794.84	534,325,370.86
Total	8,844,978,421.05	10,086,275,344.83

13.6 Statement of cash flows

13.6.1 Information on adjusting net profit to cash flows from operating activities

Supplementary information	Year 2020	Year 2019
1. Net profit adjusted to cash flows from operating activities:		
Net profit	5,857,799,068.05	6,116,040,788.38
Plus: losses from asset impairment	2,713,730.80	27,408,574.50
Losses from credit impairment (applicable to the new standards for financial instruments)		
Depreciation of fixed assets, depletion of oil and gas assets, and depreciation of productive biological assets	14,954,204.85	35,271,481.33
Depreciation of right-of-use assets (applicable to the new standards for lease)		
Amortization of intangible assets	35,037,135.75	38,561,621.03
Amortization of long-term deferred expenses	2,533,749.68	2,518,087.99
Losses from disposal of fixed assets, intangible assets and other long-term assets ("-" for gains)	23,211.80	-25,601,243.25
Losses from scrapping of fixed assets ("-" for gains)		63,899.77
Losses from changes in fair value ("-" for gains)	18,109,100.00	
Financial expenses ("-" for gains)	3,079,820,434.54	3,252,686,201.17
Investment losses ("-" for gains)	-8,844,978,421.05	-10,086,275,344.83
Decreases in deferred income tax assets ("-" for increases)		
Increases in deferred income tax liabilities ("-" for decreases)		
Decreases in inventories ("-" for increases)	41,202,054.85	109,400,649.29
Decreases in operating receivables ("-" for increases)	-1,508,133,128.50	-1,189,041,425.94

Supplementary information	Year 2020	Year 2019
Increases in operating payables ("-" for decreases)	1,405,700,879.79	-2,393,056,817.54
Others		
Net cash flows from operating activities	104,782,020.56	-4,112,023,528.10
2. Significant investing and financing activities not involving cash receipts and payments:		
Conversion of debt into capital		
Convertible corporate bonds maturing within one year		
Fixed assets acquired under finance leases		
3. Net changes in cash and cash equivalents:		
Ending balance of cash	346,679,746.54	1,734,802,021.16
Less: beginning balance of cash	1,734,802,021.16	2,006,470,157.62
Plus: ending balance of cash equivalents		
Less: beginning balance of cash equivalents		
Net increase in cash and cash equivalents	-1,388,122,274.62	-271,668,136.46

13.6.2 Composition of cash and cash equivalents

Project	Balance as at December 31, 2020	Balance as at January 1, 2020
I. Cash	346,679,746.54	1,734,802,021.16
Including: cash on hand	15,182.45	10,490.35
Unrestricted bank deposit	343,622,073.50	1,734,761,503.32
Other unrestricted monetary funds	3,042,490.59	30,027.49
Unrestricted deposits in central bank		
Deposits in banks and other financial institutions		
Loans to banks and other financial institutions		
II. Cash equivalents		
Including: bond investments maturing within three months		
III. Ending balance of cash and cash equivalents	346,679,746.54	1,734,802,021.16

14 Other contents to be disclosed as required by relevant financial and accounting systems

Acquisition of KE Company by Shanghai Electric Power Co., Ltd., a subsidiary of the Company

On December 16, 2016, the Company convened the first extraordinary general meeting in 2016, in which the Company was approved to sign the *Agreement on Trading in Stocks Held by KES POWER LTD. in K-ELECTRIC LIMITED* and relevant agreements. The Company should acquire 18,335,542,678 shares of stocks held by KES Power Ltd. in K-ELECTRIC LIMITED (hereinafter referred to as "KE Company") with cash. These shares accounted for 66.40% of the total share capital issued by KE Company, and the consideration payable was USD 1,770 million. The Company should also provide the bounty of no more than USD 27 million to the counterparty or the party designated

by such counterparty based on the operation condition of the target company.

In October 2017, National Electric Power Regulatory Authority (NEPRA) announced the review results of the new MYT electricity price mechanism of KE Company, which still failed to meet expectations. The relevant competent authorities of the Pakistani government have formally sent a letter to NEPRA on the result of the review of the new MYT electricity price of KE Company, asking it to reconsider the review result of the electricity price. On December 5, 2017, NEPRA held a review hearing of new MYT electricity price.

NEPRA has announced the MYT after "reconsideration". KE Company has filed a lawsuit against NEPRA's electricity price review decision and has obtained an injunction that the new electricity price will not take effect until the lawsuit is completed.

The transaction still has a possibility that the change in the electricity price will affect the profitability of the target company, or the risk that causes the termination of the transaction.

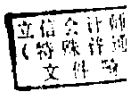
As at the reporting date, the acquisition transaction has not been completed, and relevant expenditures incurred before have been fully included in the current profit or loss.

15 Approval of the financial statements

The financial statements had been approved by the Board of Directors of the Company.

State Power Investment Corporation Limited

April 19, 2021



STATE POWER INVESTMENT CORPORATION LIMITED

AUDITORS' REPORT AND FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

PCPAR [2020] No. ZG28824

STATE POWER INVESTMENT CORPORATION LIMITED
AUDITORS' REPORT AND FINANCIAL STATEMENTS
(For the Year Ended December 31, 2019)

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Auditors' Report

PCPAR [2020] No. ZG28824

To the Board of Directors of State Power Investment Corporation Limited,

I. Opinion

We have audited the attached financial statements of State Power Investment Corporation Limited (hereinafter referred to as "the Company"), which comprise the consolidated balance sheet and the balance sheet of the parent company as at December 31, 2019, the consolidated income statement and the income statement of the parent company, the consolidated statement of cash flows and the statement of cash flows of the parent company, the consolidated statement of changes in owners' equity and the statement of changes in owners' equity of the parent company and notes to the financial statements for the year then ended.

In our opinion, the financial statements of the Company are prepared in accordance with Accounting Standards for Business Enterprises and present fairly, in all material respects, the consolidated financial position and the financial position of the parent company as at December 31, 2019 and the consolidated operating results and the operating results and cash flows of the parent company for the year then ended.

II. Basis for Opinion

We conducted our audit in accordance with Auditing Standards for Certified Public Accountants in China. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. According to the Code of Ethics for Chinese certified public accountant, we are independent of the Company, and we have fulfilled other responsibilities in the aspect of code of ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

III. Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements for the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. We determine to communicate the following key audit matters in the auditors' report.

Key Audit Matters	How to cope with these matters in the course of audit
(I) Fair value measurement of investment properties	
On January 1, 2019, as described in Notes 4.15, 5.1.6 and 8.24 to the consolidated financial statements, the Company changed the subsequent measurement model of investment properties at cost to that at fair value. As at December 31, 2019, the book balance of investment properties in the consolidated financial statements was RMB 4.188 billion. The management of the Company and its subsidiaries hires a qualified third-party evaluation agency to evaluate the fair value of investment properties, with the income method and by referring to the open market price. The changes in estimates and assumptions involved in the fair value assessment process (such as the economic environment and future trend analysis of the area where the investment properties are located, the estimated rent, rental rate and discount rate, etc.) will impose great impact on the fair value of evaluated investment properties. Therefore, we have included the fair value measurement of investment properties as a key audit matter.	Our audit procedures mainly include: 1. Evaluate the effectiveness of the management's internal control design and operation of investment properties; 2. Evaluate the objectivity, independence and professional competence of the third-party evaluation agency hired by the management; 3. Review the valuation report prepared by the external evaluation agency hired by the management, understand and evaluate whether the method, valuation model, parameter selection and forecast data for fair value recognition are appropriate, and whether the evaluation results are reliable; 4. Obtain asset ownership certificates, on-going lease contracts and other documents, and review the accuracy of the valuation of the closing value in combination with the rental income of investment properties; and 5. Review the presentation and disclosure in the financial statements related to the fair value evaluation of investment properties.
(II) Impairment of fixed assets	
On December 31, 2019, as stated in Notes 4.16.4 and 8.25.1 to the consolidated financial statements, the original book value of fixed assets in the consolidated financial statements was RMB 915.395 billion; book value was RMB 604.224 billion, and the provision for impairment in 2019 was RMB 2.175 billion. According to the Accounting Standards for Business Enterprises and the Company's accounting policies, the management of the Company should judge whether there are signs of impairment of fixed assets on each balance sheet date; for the assets with signs of impairment, the Company shall further estimate their recoverable amount; for the fixed assets with their recoverable amount lower than their book value, corresponding provision for impairment shall be made. Refer to the disclosure in Note 8.68 "Losses on asset impairment" to the Financial Statements for the changes in the provision for impairment of fixed assets in 2019. The impairment test of fixed assets relies heavily on the management's judgments and estimates which are affected by the judgments on the future market and the economic environment. Different estimates and assumptions used will cause great impact on the impairment of the estimated fixed assets. In 2019, the management of the Company made provision of RMB 2.175 billion for impairment of fixed assets based on the evaluation results of external valuation experts. Therefore, we have listed the impairment of fixed asset as a key audit matter.	Our audit procedures mainly include: 1. Understand key internal control of the management to evaluate the provision for fixed asset impairment; 2. Test the effectiveness of the management's design, execution and operation of the key internal control in evaluating the provision for impairment of fixed assets; 3. Make a random stocktaking on important fixed assets to understand whether the related assets are lagging in technology and idle for a long term, as well as load rate and other conditions; 4. Review the key assumptions during the impairment assessment, such as sensitivity analysis of gross margin and discount rate, and consider their potential impact on the impairment evaluation results when they are reasonably changed; 5. Check the presentation and disclosure of the information related to fixed asset impairment.

Key Audit Matters	How to cope with these matters in the course of audit
(III) Valuation of financial assets	
The valuation of the Company's financial instruments is based on market data and valuation models which usually require a large number of parameter inputs. Most of the parameters are derived from the data that can be reliably obtained from active markets. When observable parameters cannot be obtained reliably, that is, when fair value belongs to the third level, the unobservable parameters will determined with the management's estimates, which will involve the management's significant judgment. Valuation techniques often include assumptions and estimates that rely on subjective judgment. Different valuation techniques or assumptions to be used may result in significant differences in the fair value estimates of financial instruments. Due to complex processes in evaluation of the fair value of financial instruments and the degree of the management's judgment in determining the parameters used in the valuation model, as at December 31, 2019, the financial assets measured at fair value were RMB 14.764 billion. Therefore, we identified the assessment of the fair value of financial instruments as a key audit matter.	Our audit procedures mainly include: 1. Understand and evaluate the effectiveness of internal control processes used by the management to identify, measure and manage the valuation risks of financial assets; 2. Obtain an asset appraisal report issued by an external appraiser hired by management, and evaluate the external appraiser's competence, professionalism, and objectivity; fully communicate with valuation experts to understand and evaluate the applicability of relevant valuation methods, models and pricing parameters; 3. Select samples and appraise the valuation of financial assets measured at the first level of fair value by comparing the fair value adopted by the Company with publicly available market data; 4. For the valuation of financial assets classified into the second and third levels, we evaluate the applicability of the valuation model, and review the authenticity and accuracy of the basic data used in the valuation process and recalculate the valuation results; 5. Evaluate whether the relevant disclosures in the financial statements meet the disclosure requirements of the Accounting Standards for Business Enterprises and appropriately reflect the valuation risks of financial assets.

IV. Responsibilities of Management and Those Charged with Governance for the Financial Statements

The Company's Management (hereinafter referred to as the Management) is responsible for preparing the financial statements in accordance with the requirements of Accounting Standards for Business Enterprises to achieve a fair presentation, and for designing, implementing and maintaining internal control that is necessary to ensure that the financial statements are free from material misstatements, whether due to frauds or errors.

In preparing the financial statements, the Management is responsible for assessing the Company's going-concern ability, disclosing the matters related to going concern (if applicable) and using the going-concern assumption unless the Management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing TPAM's financial reporting process.

V. **CPA's Responsibility for Audit of Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the audit standards will always detect a material misstatement when it exists. Misstatements may arise from fraud or error and are generally considered material if separate or aggregated misstatements are reasonably expected to possibly influence the economic decisions made by the users of financial statements on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. Meanwhile, we also:

(1) Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

(2) Understand the internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control.

(3) Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

(4) The management comes to the conclusion by using the appropriateness of the assumption of going concern. Meanwhile, based on the audit evidence obtained, we come to a conclusion on whether a material uncertainty exists in events or conditions that may cause significant doubt on the Company's going-concern ability. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the information obtained as at the date of our auditors' report. However, future matters or situation may cause failure of the Company in going concern.

(5) Evaluate the overall presentation (including the disclosures), structure and content of the financial statements, and evaluate whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

(6) Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding the planned scope and timing of the audit, significant audit findings and other matters, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them in regard to all relationships and other matters that may reasonably be thought to affect our independence as well as related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

VI. Other Matters

We remind users of financial statements that this report is only used for special purpose of issuing bonds by the Company, and may not be used for other purposes without the written consent of BDO CHINA Shu Lun Pan Certified Public Accountants LLP. The contents of this paragraph do not affect the audited opinions.

BDO CHINA Shu Lun Pan
Certified Public Accountants LLP

Certified Public Accountant of China:

(Partner)

Certified Public Accountant of China:

Shanghai, China

April 29, 2020

This auditors' report and the accompanying financial statements are English translations of the Chinese auditors' report and statutory financial statements prepared under accounting principles and practices generally accepted in the People's Republic of China. In case the English version does not conform to the Chinese version, the Chinese version shall prevail.

State Power Investment Corporation Limited
Consolidated Balance Sheet
December 31, 2019
(Amounts are expressed in RMB unless otherwise stated)

Item	Notes	Balance as at December 31, 2019	Balance as at January 1, 2019
Current assets:			
Monetary funds	8.1	28,229,417,181.70	23,109,090,528.45
△Balances with clearing companies			
△Loans to banks and other financial institutions			600,175,000.00
☆Financial assets held for trading	8.2	9,337,138,036.24	6,055,288,262.68
Financial assets measured at fair value through current profit and loss	8.3	895,729,855.41	3,307,883,067.37
Derivative financial assets	8.4	114,008,596.43	289,949,415.36
Notes receivable	8.5	14,069,575,431.49	8,890,505,693.33
Accounts receivable	8.6	49,929,724,193.21	41,258,355,908.02
☆Receivables financing	8.7	2,156,787,773.52	123,901,507.72
Advances to suppliers	8.8	19,416,206,899.51	17,702,269,253.31
△Premiums receivable			
△Reinsurance accounts receivable			
△Reinsurance contract reserves receivable			
Other receivables	8.9	19,656,788,266.39	13,801,305,634.95
△Financial assets purchased under resale agreements	8.10		33,600,523.00
Inventories	8.11	22,866,109,417.00	22,433,926,907.30
Including: raw materials		9,397,035,049.37	8,317,647,736.13
Stock commodities (finished goods)		2,602,330,041.30	3,755,127,468.92
☆Contract assets	8.12	5,506,088,686.20	2,816,419,993.15
Assets held for sale	8.13	4,431,941,131.67	5,468,274,457.03
Non-current assets maturing within one year	8.14	24,985,659,965.46	15,638,067,459.02
Other current assets	8.15	19,065,325,960.31	16,164,948,476.47
Total current assets		220,660,501,394.54	177,693,962,087.16
Non-current assets:			
△Loans and advances	8.16	651,767,097.46	5,362,278,756.67
☆Creditor's right investment	8.17	1,048,367,921.22	1,964,225,461.18
Available-for-sale financial assets	8.18	7,536,581,288.93	9,366,219,277.76
☆Other creditor's right investment			
Held-to-maturity investments	8.19	4,285,964,839.75	2,401,536,628.00
Long-term receivables	8.20	55,724,133,391.96	41,708,772,279.01
Long-term equity investments	8.21	39,245,264,687.00	39,192,137,240.62
☆Other equity instrument investments	8.22	2,498,695,393.13	2,038,856,839.24
☆Other non-current financial assets	8.23	197,170,379.36	399,681,087.33
Investment properties	8.24	4,188,604,702.44	3,566,829,098.68
Fixed assets	8.25	604,756,212,504.00	550,681,610,805.93
Construction in progress	8.26	157,494,642,429.70	163,236,454,748.92
Productive biological assets			
Oil and gas assets			
☆Right-of-use assets	8.27	5,284,860,281.91	5,238,637,730.86
Intangible assets	8.28	35,053,910,858.59	31,475,266,102.86
Development expenses	8.29	5,745,418,433.67	5,739,047,735.28

Item	Notes	Balance as at December 31, 2019	Balance as at January 1, 2019
Goodwill	8.30	10,559,342,155.25	11,299,914,713.71
Long-term deferred expenses	8.31	4,277,852,305.82	3,710,470,766.96
Deferred income tax assets	8.32	3,976,640,472.50	3,200,401,981.23
Other non-current assets	8.33	31,153,572,837.60	23,695,101,081.70
Including: special reserve materials			
Total non-current assets		973,679,001,980.29	904,277,442,335.94
Total assets		1,194,339,503,374.83	1,081,971,404,423.10

Remarks: items marked with △ are for financial companies purpose only; items marked with # are for foreign-funded companies purpose only; and items marked with ☆ are used for enterprises adopting new revenue/lease/financial instruments standards.

The accompanying notes to the financial statements are integral parts of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Consolidated Balance Sheet (Continued)
December 31, 2019
(Amounts are expressed in RMB unless otherwise stated)

Item	Notes	Balance as at December 31, 2019	Balance as at January 1, 2019
Current liabilities:			
Short-term borrowings	8.34	148,336,462,719.11	126,018,895,277.77
△Borrowings from central bank			
△Loans from banks and other financial institutions			
☆Financial liabilities held for trading			
Financial liabilities measured at fair value through current profit or loss	8.35		5,000,000.00
Derivative financial liabilities	8.36	266,143,986.38	156,986,297.55
Notes payable	8.37	13,582,812,816.73	9,060,758,766.38
Accounts payable	8.38	54,342,716,714.20	52,302,418,673.15
Advances from customers	8.39	13,867,267,963.30	13,754,764,516.83
☆Contract liabilities	8.40	68,288,762.47	138,505,779.34
△Financial assets sold under repurchase agreements			
△Absorption of deposits and interbank deposit	8.41	25,048,256.16	42,814,860.29
△Receivings from vicariously traded securities			
△Receivings from vicariously sold securities			
Employee compensation payable	8.42	2,848,375,446.54	1,850,841,793.50
Including: accrued payroll		1,739,087,407.68	770,579,697.32
Welfare payable		1,362,397.89	1,362,610.20
#Including: employee bonus and welfare fund			
Taxes and surcharges payable	8.43	6,060,807,045.55	5,259,695,834.70
Including: taxes payable		4,989,479,998.23	4,178,571,204.57
Other payables	8.44	25,652,240,498.44	23,265,604,808.57
△Handling charges and commissions payable			
△Reinsurance accounts payable			
Liabilities held for sale	8.45	4,080,297,086.02	4,225,352,167.24
Non-current liabilities maturing within one year	8.46	82,561,021,021.83	79,073,596,899.75
Other current liabilities	8.47	53,766,637,032.81	54,445,550,200.07
Total current liabilities		405,458,119,349.54	369,600,785,875.14
Non-current liabilities:			
△Reserves for insurance contract			
Long-term borrowings	8.48	319,472,955,750.20	332,886,123,656.72
Bonds payable	8.49	119,503,027,595.22	92,137,881,464.33
Including: preferred stock			
Perpetual capital securities			
☆Lease liabilities	8.51	4,104,921,109.60	4,686,125,322.36
Long-term payables	8.52	39,439,601,799.43	36,946,184,002.37
Long-term employee compensation payable	8.53	12,681,937.11	15,511,318.99
Estimated liabilities	8.54	527,967,440.32	337,831,758.74
Deferred income	8.55	10,547,498,417.33	9,905,038,551.84

Item	Notes	Balance as at December 31, 2019	Balance as at January 1, 2019
Deferred income tax liabilities		1,505,414,322.29	1,151,884,417.93
Other non-current liabilities	8.56	3,819,688,008.19	509,099,896.39
Including: special reserve funds			
Total non-current liabilities		498,933,756,379.69	478,575,680,389.67
Total liabilities		904,391,875,729.23	848,176,466,264.81
Owners' equity (or shareholders' equity):			
Paid-in capital (or share capital)		35,000,000,000.00	35,000,000,000.00
State-owned capital	8.57	35,000,000,000.00	35,000,000,000.00
State-owned legal person capital			
Capital contributed by collective entity			
Private capital			
Foreign capital			
#Less: investment returned			
Net paid-in capital (or share capital)		35,000,000,000.00	35,000,000,000.00
Other equity instruments	8.58	52,766,185,754.59	27,844,116,792.42
Including: preferred stock			
Perpetual capital securities		52,766,185,754.59	27,844,116,792.42
Capital reserve	8.59	17,651,701,209.49	7,280,829,950.00
Less: treasury stock			
Other comprehensive income	8.73	-248,912,253.58	-858,628,312.05
Including: foreign currency translation differences		-964,139,555.18	-956,919,300.88
Special reserve	8.60	180,259,763.35	164,608,077.54
Surplus reserve			
Including: statutory reserve funds			
Discretionary reserve funds			
#Reserve funds			
#Enterprise expansion funds			
#Profit capitalized on return of investments			
△General risk reserve			
Undistributed profits	8.61	3,170,854,915.70	4,890,541,133.61
Total equity attributable to owners (or shareholders) of the parent company		108,520,089,389.55	74,321,467,641.52
Minority equity		181,427,538,256.05	159,473,470,516.77
Total owners' equity (or shareholders' equity)		289,947,627,645.60	233,794,938,158.29
Total liabilities and owners' equity (or shareholders' equity)		1,194,339,503,374.83	1,081,971,404,423.10

Remarks: items marked with △ are for financial companies purpose only; items marked with # are for foreign-funded companies purpose only; and items marked with ☆ are used for enterprises adopting new revenue/lease/financial instruments standards.

The accompanying notes to the financial statements are integral parts of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Balance Sheet of the Parent Company
December 31, 2019
(Amounts are expressed in RMB unless otherwise stated)

Item	Notes	Balance as at December 31, 2019	Balance as at January 1, 2019
Current assets:			
Monetary funds		1,734,802,021.16	2,006,470,157.62
△Balances with clearing companies			
△Loans to banks and other financial institutions			
☆Financial assets held for trading			
Financial assets measured at fair value through current profit and loss			
Derivative financial assets			
Notes receivable		179,900,725.97	88,280,187.63
Accounts receivable	13.1	2,092,554,813.31	2,235,649,971.64
☆Receivables financing			
Advances to suppliers		387,489,807.25	257,287,377.68
△Premiums receivable			
△Reinsurance accounts receivable			
△Reinsurance contract reserves receivable			
Other receivables	13.2	5,986,305,629.79	9,651,638,388.55
△Financial assets purchased under resale agreements			
Inventories		312,759,940.24	422,160,589.53
Including: raw materials			
Stock commodities (finished goods)		312,759,940.24	422,138,807.53
☆Contract assets			
Assets held for sale			
Non-current assets maturing within one year			
Other current assets		6,889,109,003.92	1,714,344,969.24
Total current assets		17,582,921,941.64	16,375,831,641.89
Non-current assets:			
△Loans and advances			
☆Creditor's right investment			
Available-for-sale financial assets		3,002,204,704.07	541,859,000.00
☆Other creditor's right investment			
Held-to-maturity investments			
Long-term receivables			
Long-term equity investments	13.3	158,480,275,174.02	149,536,416,285.14
☆Other equity instrument investments			
☆Other non-current financial assets			
Investment properties		2,139,901,700.00	1,133,421,488.45
Fixed assets		318,055,723.58	680,739,607.47
Construction in progress		36,579,600.69	34,030,360.42
Productive biological assets			
Oil and gas assets			
☆Right-of-use assets			
Intangible assets		1,119,250,953.69	29,815,098.48
Development expenses			
Goodwill			
Long-term deferred expenses		22,124,888.99	2,638,219.53

Item	Notes	Balance as at December 31, 2019	Balance as at January 1, 2019
Deferred income tax assets			
Other non-current assets		5,945,449,194.74	6,491,785,174.04
Including: special reserve materials			
Total non-current assets		171,063,841,939.78	158,450,705,233.53
Total assets		188,646,763,881.42	174,826,536,875.42

Remarks: items marked with △ are for financial companies purpose only; items marked with # are for foreign-funded companies purpose only; and items marked with ☆ are used for enterprises adopting new revenue/lease/financial instruments standards.

The accompanying notes to the financial statements are integral parts of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Balance Sheet of the Parent Company (Continued)
December 31, 2019
(Amounts are expressed in RMB unless otherwise stated)

Item	Notes	Balance as at December 31, 2019	Balance as at January 1, 2019
Current liabilities:			
Short-term borrowings		39,100,057,366.96	37,501,044,827.71
△Borrowings from central bank			
△Loans from banks and other financial institutions			
☆Financial liabilities held for trading			
Financial liabilities measured at fair value through current profit or loss			
Derivative financial liabilities			
Notes payable			
Accounts payable		1,463,141,814.78	1,887,835,848.12
Advances from customers		691,577,417.34	566,931,788.65
☆Contract liabilities			
△Financial assets sold under repurchase agreements			
△Absorption of deposits and interbank deposit		1,515,846,900.66	4,967,177,631.05
△Receivings from vicariously traded securities			
△Receivings from vicariously sold securities			
Employee compensation payable		707,160,389.32	476,202,067.00
Including: accrued payroll		676,056,777.54	450,480,777.54
Welfare payable			
#Including: employee bonus and welfare fund			
Taxes and surcharges payable		7,538,800.74	7,394,126.36
Including: taxes payable		7,538,800.74	7,394,126.36
Other payables		1,310,871,988.91	1,519,167,348.38
△Handling charges and commissions payable			
△Reinsurance accounts payable			
Liabilities held for sale			
Non-current liabilities maturing within one year		9,997,365,000.00	11,473,721,000.00
Other current liabilities		81,000,000.00	5,514,999,999.44
Total current liabilities		54,874,559,678.71	63,914,474,636.71
Non-current liabilities:			
△Reserves for insurance contract			
Long-term borrowings			3,162,800,000.00
Bonds payable		27,083,880,000.00	32,128,000,000.00
Including: preferred stock			
Perpetual capital securities			
☆Lease liabilities			
Long-term payables		1,009,982,162.06	1,018,550,526.25
Long-term employee compensation payable			
Estimated liabilities			
Deferred income		1,022,625.00	1,136,250.00
Deferred income tax liabilities		457,900,616.28	
Other non-current liabilities			
Including: special reserve funds			
Total non-current liabilities		28,552,785,403.34	36,310,486,776.25
Total liabilities		83,427,345,082.05	100,224,961,412.96
Owners' equity (or shareholders' equity):			
Paid-in capital (or share capital)		35,000,000,000.00	35,000,000,000.00

Item	Notes	Balance as at December 31, 2019	Balance as at January 1, 2019
State-owned capital		35,000,000,000.00	35,000,000,000.00
State-owned legal person capital			
Capital contributed by collective entity			
Private capital			
Foreign capital			
#Less: investment returned			
Net paid-in capital (or share capital)		35,000,000,000.00	35,000,000,000.00
Other equity instruments		52,766,185,754.59	27,844,116,792.42
Including: preferred stock			
Perpetual capital securities		52,766,185,754.59	27,844,116,792.42
Capital reserve		613,358,860.50	766,936,862.40
Less: treasury stock			
Other comprehensive income		1,358,542,879.82	
Including: foreign currency translation differences			
Special reserve			
Surplus reserve			
Including: statutory reserve funds			
Discretionary reserve funds			
#Reserve funds			
#Enterprise expansion funds			
#Profit capitalized on return of investments			
△General risk reserve			
Undistributed profits		15,481,331,304.46	10,990,521,807.64
Total owners' equity (or shareholders' equity)		105,219,418,799.37	74,601,575,462.46
Total liabilities and owners' equity (or shareholders' equity)		188,646,763,881.42	174,826,536,875.42

Remarks: items marked with △ are for financial companies purpose only; items marked with # are for foreign-funded companies purpose only; and items marked with ☆ are used for enterprises adopting new revenue/lease/financial instruments standards.

The accompanying notes to the financial statements are integral parts of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Consolidated Income Statement
Year 2019
(Amounts are expressed in RMB unless otherwise stated)

Item	Notes	Year 2019	Year 2018
I. Total operating income		272,239,922,635.59	226,501,147,148.64
Including: operating income	8.62	272,239,922,635.59	226,501,147,148.64
△Interest income			
△Premiums earned			
△Income from handling charges and commissions			
II. Total operating costs		255,291,856,726.45	221,293,972,173.22
Including: operating costs	8.62	213,291,430,221.38	182,882,434,842.17
△Interest expenses			
△Handling charges and commissions expenses			
△Surrender value			
△Net amount of compensation payout			
△Net amount withdrawn for insurance liability reserves			
△Policy dividend payment			
△Reinsurance costs			
Taxes and surcharges		4,746,706,838.74	4,508,250,102.76
Selling expenses	8.63	707,920,729.28	829,220,492.79
General and administrative expenses	8.63	7,139,548,157.81	6,746,285,359.67
R&D expenses	8.63	1,533,836,877.37	785,501,727.07
Financial expenses	8.63	27,872,413,901.87	25,542,279,648.76
Including: interest expenses		27,517,374,716.73	25,616,221,503.77
Interest income		286,266,382.90	430,281,777.06
Net losses from foreign exchange ("-" for net gains)		61,458,460.23	80,557,327.95
Others			
Plus: other income	8.64	1,847,913,949.21	1,555,503,657.08
Investment income ("-" for losses)	8.65	5,777,562,122.58	5,411,904,234.36
Including: income from investment in associates and joint ventures		2,310,519,735.44	1,897,166,045.01
☆Income from derecognition of financial assets measured at amortized cost		-26,543,704.67	
△Foreign exchange gains ("-" for losses)		1,066,383.32	5,978,287.64
☆Income from net exposure hedging ("-" for losses)			
Gains from the changes in fair value (- for losses)	8.66	53,135,256.57	222,304,424.45
☆Losses from credit impairment ("-" for losses)	8.67	-146,836,127.62	
Losses from asset impairment ("-" for losses)	8.68	-8,115,494,212.22	-2,366,820,293.79
Income from disposal of assets ("-" for losses)	8.69	331,493,784.71	251,728,768.13
III. Operating profit ("-" for losses)		16,696,907,065.69	10,287,774,053.29
Plus: non-operating income	8.70	1,378,054,257.76	1,432,985,836.77
Including: government subsidies		208,446,392.89	340,630,217.76
Less: non-operating expenses	8.71	2,173,698,006.07	615,976,962.79
IV. Total profits ("-" for total loss)		15,901,263,317.38	11,104,782,927.27
Less: income tax expenses	8.72	5,360,640,521.10	4,095,032,310.94
V. Net profit ("-" for net loss)		10,540,622,796.28	7,009,750,616.33
(I) Classified by ownership:			

Item	Notes	Year 2019	Year 2018
Net profit attributable to owners of the parent company		1,240,400,645.84	1,169,072,608.48
Minority interest income		9,300,222,150.44	5,840,678,007.85
(II) Classified by operating sustainability			
Net profit from continuing operations		10,540,622,796.28	7,009,750,616.33
Net profit from discontinued operations			
VI. Other comprehensive income net of tax		473,397,060.10	-1,775,806,896.77
Net amount of other comprehensive income attributable to owners of the parent company after tax		609,716,058.47	-1,021,849,749.46
(I) Other comprehensive income that cannot be reclassified into profits or losses		-157,173,691.58	-30,484,614.29
1. Changes in re-measurement of the defined benefit plan			
2. Other comprehensive income that cannot be transferred to profits or losses under the equity method		-275,174.68	745,654.01
☆3. Changes in fair value of other equity instrument investments		-156,898,516.90	-31,230,268.30
☆4. Changes in the fair value of the Company's own credit risk			
5. Others			
(II) Other comprehensive income that will be reclassified into profits or losses		766,889,750.05	-991,365,135.17
1. Other comprehensive income that can be transferred to profits or losses under the equity method		-41,977,332.61	27,826,777.69
☆2. Changes in fair value of other creditor's right investments			
3. Profit and loss of change in fair value of available-for-sale financial assets		108,968,703.43	-123,022,515.24
☆4. Amount of financial assets reclassified into other comprehensive income			
5. Profit or loss arising from reclassification of held-to-maturity investments as available-for-sale financial assets		197,163,741.27	-583,372.00
☆6. Provision for credit impairment of other creditor's rights investment			
7. Reserves of cash flow hedges (effective portion of cash flow hedging profit or loss)		-208,946,359.51	-38,816,120.22
8. Translation differences of financial statements denominated in foreign currency		-7,220,254.30	-856,769,905.40
9. Others		718,901,251.77	
Other comprehensive income net of tax attributable to minority shareholders		-136,318,998.37	-753,957,147.31
VII. Total comprehensive income		11,014,019,856.38	5,233,943,719.56
Total comprehensive income attributable to owners of the parent company		1,850,116,704.31	147,222,859.02
Total comprehensive income attributable to minority shareholders		9,163,903,152.07	5,086,720,860.54
VIII. Earnings per share:		—	—
Basic earnings per share			
Diluted earnings per share			

Remarks: items marked with △ are for financial companies purpose only; and items marked with ☆ are used for enterprises adopting new revenue/lease/financial instruments standards.

The accompanying notes to the financial statements are integral parts of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Income Statement of the Parent Company
Year 2019
(Amounts are expressed in RMB unless otherwise stated)

Item	Notes	Year 2019	Year 2018
I. Total operating income		3,743,970,239.59	3,611,389,161.73
Including: operating income	13.4	3,743,970,239.59	3,611,389,161.73
△Interest income			
△Premiums earned			
△Income from handling charges and commissions			
II. Total operating costs		7,716,430,655.61	8,670,276,121.56
Including: operating costs	13.4	3,387,615,954.01	3,486,380,897.93
△Interest expenses			
△Handling charges and commissions expenses			
△Surrender value			
△Net amount of compensation payout			
△Net amount withdrawn for insurance liability reserves			
△Policy dividend payment			
△Reinsurance costs			
Taxes and surcharges		23,107,959.26	28,013,177.07
Selling expenses			855.00
General and administrative expenses		1,063,881,141.46	950,796,209.59
R&D expenses		1,254,761.76	947,941.85
Financial expenses		3,240,570,839.12	4,204,137,040.12
Including: interest expenses		3,248,914,803.05	4,224,430,529.83
Interest income		12,292,691.34	19,912,032.27
Net losses from foreign exchange ("-" for net gains)		-333,184.96	-874,129.27
Others			
Plus: other income		115,371.68	15,635.48
Investment income ("-" for losses)	13.5	10,086,275,344.83	7,070,518,448.93
Including: income from investment in associates and joint ventures		1,419,782.40	24,649,828.86
☆Income from derecognition of financial assets measured at amortized cost			
△Foreign exchange gains ("-" for losses)			
☆Income from net exposure hedging ("-" for losses)			
Gains from the changes in fair value (- for losses)			
☆Losses from credit impairment ("-" for losses)			
Losses from asset impairment ("-" for losses)		-27,408,574.50	65,000.00
Income from disposal of assets ("-" for losses)		25,601,243.25	
III. Operating profit ("-" for losses)		6,112,122,969.24	2,011,712,124.58
Plus: non-operating income		6,583,417.14	338,452.77
Including: government subsidies		113,625.00	113,625.00
Less: non-operating expenses		2,665,598.00	4,331,016.06
IV. Total profits ("-" for total loss)		6,116,040,788.38	2,007,719,561.29
Less: income tax expenses			
V. Net profit ("-" for net loss)		6,116,040,788.38	2,007,719,561.29
(I) Net profit from continuing operations		6,116,040,788.38	2,007,719,561.29
(II) Net profit from discontinued operations			
VI. Other comprehensive income net of tax		1,358,542,879.82	
(I) Other comprehensive income that cannot be reclassified into profits or losses			

Item	Notes	Year 2019	Year 2018
1. Changes in re-measurement of the defined benefit plan			
2. Other comprehensive income that cannot be transferred to profits or losses under the equity method			
☆3. Changes in fair value of other equity instrument investments			
☆4. Changes in the fair value of the Company's own credit risk			
5. Others			
(II) Other comprehensive income that will be reclassified into profits or losses		1,358,542,879.82	
1. Other comprehensive income that can be transferred to profits or losses under the equity method			
☆2. Changes in fair value of other creditor's right investments			
3. Profit and loss of change in fair value of available-for-sale financial assets		-4,599,589.20	
☆4. Amount of financial assets reclassified into other comprehensive income			
5. Profit or loss arising from reclassification of held-to-maturity investments as available-for-sale financial assets			
☆6. Provision for credit impairment of other creditor's rights investment			
7. Reserves of cash flow hedges (effective portion of cash flow hedging profit or loss)			
8. Translation differences of financial statements denominated in foreign currency			
9. Others		1,363,142,469.02	
VII. Total comprehensive income		7,474,583,668.20	2,007,719,561.29
VIII. Earnings per share:			
Basic earnings per share			
Diluted earnings per share			

Remarks: items marked with △ are for financial companies purpose only; and items marked with ☆ are used for enterprises adopting new revenue/lease/financial instruments standards.

The accompanying notes to the financial statements are integral parts of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Consolidated Statement of Cash Flows
Year 2019
(Amounts are expressed in RMB unless otherwise stated)

Item	Notes	Year 2019	Year 2018
I. Cash flow from operating activities:			
Cash received from sale of goods and rendering of services		264,186,286,493.71	224,687,290,957.63
△Net increase in customer deposits and placement from banks and other financial institutions		-581,642,206.20	5,815,459,577.60
△Net increase in borrowings from central bank			-18,766,958.38
△Net increase in loans from other financial institutions		-200,000,000.00	
△Cash received from receiving insurance premiums of original insurance contracts			
△Net cash received from reinsurance business			
△Net increase in deposits and investments from policyholders			
△Net increase received from disposal of financial assets measured at fair value through current profit or loss		-3,281,752,881.57	-10,549,833.03
△Cash received from interest, handling charges and commissions		1,710,169,127.75	1,598,412,091.90
△Net increase in loans from banks and other financial institutions			
△Net capital increase in repurchase business			
△Net cash received from vicariously traded securities			
Refunds of taxes and surcharges		507,282,880.96	484,016,640.92
Cash received from other operating activities		19,002,446,887.85	16,081,125,127.72
Sub-total of cash inflows from operating activities		281,342,790,302.50	248,636,987,604.36
Cash paid for goods purchased and services received		176,260,975,206.07	145,098,433,779.62
△Net increase in loans and advances to customers		-4,710,511,659.21	4,608,444,103.21
△Net increase in deposits in the central bank, other banks and financial institutions		-599,408,810.33	452,445,000.10
△Cash paid for original insurance contract claims			
△Net increase in loans to banks and other financial institutions			
△Cash paid for interests, handling charges and commissions		330,489,538.92	200,830,613.14
△Cash paid for policy dividends			
Cash paid to and on behalf of employees		27,452,646,608.57	23,557,655,414.70
Cash paid for taxes and surcharges		22,810,154,592.83	20,422,718,585.91
Cash paid for other operating activities		18,391,534,893.51	14,201,487,487.59
Sub-total of cash outflows from operating activities		239,935,880,370.36	208,542,014,984.27
Net cash flows from operating activities		41,406,909,932.14	40,094,972,620.09
II. Cash flows from investing activities:			
Cash received from disposal of investments		49,378,376,958.39	44,108,307,223.58
Cash received from returns on investments		3,851,217,403.97	2,201,504,838.75

Item	Notes	Year 2019	Year 2018
Net cash received from disposal of fixed assets, intangible assets and other long-term assets		561,822,383.50	1,382,745,431.13
Net cash received from disposal of subsidiaries and other business units		3,977,283,458.91	131,754,027.47
Other cash received from investing activities		17,185,527,100.04	24,454,955,222.50
Sub-total of cash inflows from investing activities		74,954,227,304.81	72,279,266,743.43
Cash paid to acquire and construct fixed assets, intangible assets and other long-term assets		75,462,045,369.40	63,493,932,050.71
Cash paid for investments		72,980,960,544.39	64,772,075,765.58
△Net increase in pledge loans			
Net cash paid to acquire subsidiaries and other business units		942,798,240.27	1,512,042,768.44
Cash paid for other investing activities		35,003,435,912.94	38,427,296,855.17
Sub-total of cash outflows from investing activities		184,389,240,067.00	168,205,347,439.90
Net cash flows from investing activities		-109,435,012,762.19	-95,926,080,696.47
III. Cash flows from financing activities:			
Cash received from investors		54,510,466,824.95	55,314,795,281.40
Including: cash received by subsidiaries from investments by minority shareholders		19,011,141,839.04	48,804,150,000.00
Cash received from borrowings		462,370,049,317.45	551,420,254,711.38
△Cash received from bonds issue		4,999,666,666.67	13,000,000,000.00
Cash received from other financing activities		36,075,651,274.11	34,326,988,904.13
Sub-total of cash inflows from financing activities		557,955,834,083.18	654,062,038,896.91
Cash paid for debt repayments		421,163,723,528.02	546,889,216,550.28
Cash paid for distribution of dividends and profits or payment of interest		41,424,826,377.89	38,241,158,700.88
Including: dividends and profits paid to minority shareholders by subsidiaries		6,456,848,481.65	2,891,377,859.82
Cash paid for other financing activities		22,329,872,671.63	16,098,364,781.06
Sub-total of cash outflows from financing activities		484,918,422,577.54	601,228,740,032.22
Net cash flows from financing activities		73,037,411,505.64	52,833,298,864.69
IV. Effect of fluctuation in exchange rate on cash and cash equivalents		103,372,791.39	6,893,870.24
V. Net increase in cash and cash equivalents		5,112,681,466.98	-2,990,915,341.45
Plus: balance of cash and cash equivalents at the beginning of the period		19,080,581,047.91	22,071,496,389.36
VI. Balance of cash and cash equivalents at the end of the period	8.78	24,193,262,514.89	19,080,581,047.91

Note: Items marked with △ are only used for financial enterprises.

The accompanying notes to the financial statements are integral parts of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Statement of Cash Flows of the Parent Company
Year 2019
(Amounts are expressed in RMB unless otherwise stated)

Item	Notes	Year 2019	Year 2018
I. Cash flow from operating activities:			
Cash received from sale of goods and rendering of services		2,842,668,952.65	2,764,711,845.81
△Net increase in customer deposits and placement from banks and other financial institutions		-3,451,330,730.39	3,930,385,008.98
△Net increase in borrowings from central bank			
△Net increase in loans from other financial institutions			
△Cash received from receiving insurance premiums of original insurance contracts			
△Net cash received from reinsurance business			
△Net increase in deposits and investments from policyholders			
△Net increase received from disposal of financial assets measured at fair value through current profit or loss			
△Cash received from interest, handling charges and commissions			260,652.47
△Net increase in loans from banks and other financial institutions			
△Net capital increase in repurchase business			
△Net cash received from vicariously traded securities			
Refunds of taxes and surcharges		138,233.67	29,386.26
Cash received from other operating activities		2,610,433,227.06	2,781,468,295.64
Sub-total of cash inflows from operating activities		2,001,909,682.99	9,476,855,189.16
Cash paid for goods purchased and services received		2,759,224,276.17	2,555,031,770.08
△Net increase in loans and advances to customers			
△Net increase in deposits in the central bank, other banks and financial institutions			
△Cash paid for original insurance contract claims			
△Net increase in loans to banks and other financial institutions			
△Cash paid for interests, handling charges and commissions		146,407,465.32	8,097,376.18
△Cash paid for policy dividends			
Cash paid to and on behalf of employees		394,794,197.10	365,816,507.33
Cash paid for taxes and surcharges		50,716,685.52	101,517,092.71
Cash paid for other operating activities		2,762,790,586.98	2,672,644,958.80
Sub-total of cash outflows from operating activities		6,113,933,211.09	5,703,107,705.10
Net cash flows from operating activities	13.6	-4,112,023,528.10	3,773,747,484.06
II. Cash flows from investing activities:			

Item	Notes	Year 2019	Year 2018
Cash received from disposal of investments		15,858,609,301.09	7,209,961,677.33
Cash received from returns on investments		2,728,656,783.96	2,562,069,584.19
Net cash received from disposal of fixed assets, intangible assets and other long-term assets			
Net cash received from disposal of subsidiaries and other business units			
Other cash received from investing activities			8,400,000.00
Sub-total of cash inflows from investing activities		18,587,266,085.05	9,780,431,261.52
Cash paid to acquire and construct fixed assets, intangible assets and other long-term assets		56,314,963.50	74,748,968.91
Cash paid for investments		19,928,924,074.04	13,573,612,585.64
△Net increase in pledge loans			
Net cash paid to acquire subsidiaries and other business units			
Cash paid for other investing activities		4,094,592.64	170,139,351.69
Sub-total of cash outflows from investing activities		19,989,333,630.18	13,818,500,906.24
Net cash flows from investing activities		-1,402,067,545.13	-4,038,069,644.72
III. Cash flows from financing activities:			
Cash received from investors		25,000,000,000.00	10,048,394,800.00
Cash received from borrowings		195,200,057,366.96	273,601,093,834.45
△Cash received from bonds issue			
Cash received from other financing activities		8,955,880,000.56	7,256,993,216.71
Sub-total of cash inflows from financing activities		229,155,937,367.52	290,906,481,851.16
Cash paid for debt repayments		210,738,701,618.66	280,873,095,183.42
Cash paid for distribution of dividends and profits or payment of interest		7,763,576,770.63	5,179,952,581.28
Cash paid for other financing activities		5,411,236,041.46	4,419,129,358.64
Sub-total of cash outflows from financing activities		223,913,514,430.75	290,472,177,123.34
Net cash flows from financing activities		5,242,422,936.77	434,304,727.82
IV. Effect of fluctuation in exchange rate on cash and cash equivalents			
V. Net increase in cash and cash equivalents	13.6	-271,668,136.46	169,982,567.16
Plus: balance of cash and cash equivalents at the beginning of the period	13.6	2,006,470,157.62	1,836,487,590.46
VI. Balance of cash and cash equivalents at the end of the period	13.6	1,734,802,021.16	2,006,470,157.62

Note: Items marked with △ are only used for financial enterprises.

The accompanying notes to the financial statements are integral parts of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Consolidated Statement of Changes in Owner's Equity
Year 2019
(Amounts are expressed in RMB unless otherwise stated)

Item	Year 2019													
	Equity attributable to owners of the parent company												Minority equity	Total owners' equity
	Paid-in capital (share capital)	Other equity instruments			Capital reserve	Less: treasury stock	Other comprehensive income	Special reserve	Surplus reserve	△General risk reserve	Undistributed profits	Subtotal		
		Preferred stock	Perpetual capital securities	Others										
I. Balance as at December 31 of last year	35,000,000,000.00	-	27,844,116,792.42	-	7,280,829,950.00	-	-1,063,862,108.19	164,608,077.54	-	-	5,108,849,553.23	74,334,542,265.00	159,655,026,744.23	233,989,569,009.23
Plus: adjustments for changes in accounting policies														
Adjustments for correction of accounting errors in prior year														
Others							205,233,796.14				-218,308,419.62	-13,074,623.48	-181,556,227.46	-194,630,850.94
II. Balance as at January 1 of the current year	35,000,000,000.00		27,844,116,792.42		7,280,829,950.00		-858,628,312.05	164,608,077.54			4,890,541,133.61	74,321,467,641.52	159,473,470,516.77	233,794,938,158.29
III. Increases/decreases in 2019 ("-" for decreases)			24,922,068,962.17		10,370,871,259.49		609,716,058.47	15,651,685.81			-1,719,686,217.91	34,198,621,748.03	21,954,067,739.28	56,152,689,487.31
(I) Total comprehensive income							665,206,039.26				1,240,400,645.84	1,905,606,685.10	9,163,903,152.07	11,069,509,837.17
(II) Capital contributed or reduced by owners			24,922,068,962.17		10,370,871,259.49						-153,652,618.11	35,139,287,603.55	19,225,342,064.29	54,364,629,667.84
1. Capital contributed by owners					10,081,936,684.59							10,081,936,684.59	13,055,706,580.56	23,137,643,265.15
2. Capital invested by the holders of other equity instruments			24,922,068,962.17									24,922,068,962.17	4,434,038,380.48	29,356,107,342.65
3. Amounts of share-based payments recognized in owner's equity														
4. Others					288,934,574.90						-153,652,618.11	135,281,956.79	1,735,597,103.25	1,870,879,060.04
(III) Withdrawal and use of special reserves								15,651,685.81				15,651,685.81	21,671,004.57	37,322,690.38
1. Withdrawal of special reserves								794,488,069.91				794,488,069.91	729,768,065.20	1,524,256,135.11
2. Use of special reserves								-778,836,384.10				-778,836,384.10	-708,097,060.63	-1,486,933,444.73
(IV) Profit distribution											-2,861,924,226.43	-2,861,924,226.43	-6,456,848,481.65	-9,318,772,708.08
1. Withdrawal of														

Item	Year 2019													
	Equity attributable to owners of the parent company												Minority equity	Total owners' equity
	Paid-in capital (share capital)	Other equity instruments			Capital reserve	Less: treasury stock	Other comprehensive income	Special reserve	Surplus reserve	△General risk reserve	Undistributed profits	Subtotal		
		Preferred stock	Perpetual capital securities	Others										
surplus reserves														
Including: statutory reserve funds														
Discretionary reserve funds														
#Reserve funds														
#Enterprise expansion funds														
#Profit capitalized on return of investments														
△2. Withdrawal of general risk reserve														
3. Distribution to owners (or shareholders)											-257,304,200.00	-257,304,200.00	-6,456,848,481.65	-6,714,152,681.65
4. Others											-2,604,620,026.43	-2,604,620,026.43		-2,604,620,026.43
(V) Internal carry-forward of owners' equity							-55,489,980.79				55,489,980.79			
1. Conversion of capital reserves into paid-in capital														
2. Conversion of surplus reserves into paid-in capital														
3. Surplus reserves offsetting losses														
4. Carry-forward of changes in the defined benefit plan for retained earnings														
☆5. Carry-forward of other comprehensive income for retained earnings							-55,489,980.79				55,489,980.79			
6. Others														
IV. Balance as at December 31 of the current year	35,000,000,000.00		52,766,185,754.59		17,651,701,209.49		-248,912,253.58	180,259,763.35			3,170,854,915.70	108,520,089,389.55	181,427,538,256.05	289,947,627,645.60

Remarks: items marked with △ are for financial companies purpose only; items marked with # are for foreign-funded companies purpose only; and items marked with ☆ are used for enterprises adopting new revenue/lease/financial instruments standards.

The accompanying notes to the financial statements are integral parts of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Consolidated Statement of Changes in Owners' Equity (Continued)
Year 2019
(Amounts are expressed in RMB unless otherwise stated)

Item	Year 2018													
	Equity attributable to owners of the parent company												Minority equity	Total owners' equity
	Paid-in capital (share capital)	Other equity instruments			Capital reserve	Less: treasury stock	Other comprehensive income	Special reserve	Surplus reserve	△General risk reserve	Undistributed profits	Subtotal		
		Preferred stock	Perpetual capital securities	Others										
I. Balance as at December 31 of last year	35,000,000,000.00		17,855,674,150.92		4,183,144,206.72		-34,454,011.67	218,909,940.56			4,883,285,382.46	62,106,559,668.99	125,028,941,611.29	187,135,501,280.28
Plus: adjustments for changes in accounting policies							205,233,796.14				122,409,502.55	327,643,298.69	-65,097,750.73	262,545,547.96
Adjustments for correction of accounting errors in prior year					-782,994,354.73		-7,551,032.60				38,604,875.08	-751,940,512.25	-1,977,043,153.23	-2,728,983,665.48
Others							-7,314.46				1,984.86	-5,329.60		-5,329.60
II. Balance as at January 1 of the current year	35,000,000,000.00		17,855,674,150.92		3,400,149,851.99		163,221,437.41	218,909,940.56			5,044,301,744.95	61,682,257,125.83	122,986,800,707.33	184,669,057,833.16
III. Increases/decreases in 2018 ("-" for decreases)			9,988,442,641.50		3,880,680,098.01		-1,021,849,749.46	-54,301,863.02			-153,760,611.34	12,639,210,515.69	36,486,669,809.44	49,125,880,325.13
(I) Total comprehensive income							-1,021,849,749.46				1,169,072,608.48	147,222,859.02	5,086,720,860.54	5,233,943,719.56
(II) Capital contributed or reduced by owners			9,988,442,641.50		3,880,680,098.01						322,453,020.99	14,191,575,760.50	34,612,581,046.48	48,804,156,806.98
1. Capital contributed by owners					3,217,823,135.03							3,217,823,135.03	29,959,140,509.78	33,176,963,644.81
2. Capital invested by the holders of other equity instruments			9,988,442,641.50									9,988,442,641.50	5,481,600,000.00	15,470,042,641.50
3. Amounts of share-based payments recognized in owner's equity														
4. Others					662,856,962.98						322,453,020.99	985,309,983.97	-828,159,463.30	157,150,520.67
(III) Withdrawal and use of special reserves								-54,301,863.02				-54,301,863.02	-33,265,934.42	-87,567,797.44
1. Withdrawal of special reserves								755,208,387.40				755,208,387.40	660,741,556.90	1,415,949,944.30
2. Use of special reserves								-809,510,250.42				-809,510,250.42	-694,007,491.32	-1,503,517,741.74
(IV) Profit distribution											-1,645,286,240.81	-1,645,286,240.81	-3,179,366,163.16	-4,824,652,403.97
1. Withdrawal of surplus reserves														

Item	Year 2018													
	Equity attributable to owners of the parent company												Minority equity	Total owners' equity
	Paid-in capital (share capital)	Other equity instruments			Capital reserve	Less: treasury stock	Other comprehensive income	Special reserve	Surplus reserve	△General risk reserve	Undistributed profits	Subtotal		
		Preferred stock	Perpetual capital securities	Others										
Including: statutory reserve funds														
Discretionary reserve funds														
#Reserve funds														
#Enterprise expansion funds														
#Profit capitalized on return of investments														
2. Withdrawal of general risk reserve														
3. Distribution to owners (or shareholders)													-3,179,366,163.16	-3,179,366,163.16
4. Others											-1,645,286,240.81	-1,645,286,240.81		-1,645,286,240.81
(V) Internal carry-forward of owners' equity														
1. Conversion of capital reserves into paid-in capital														
2. Conversion of surplus reserves into paid-in capital														
3. Surplus reserves offsetting losses														
4. Carry-forward of changes in the defined benefit plan for retained earnings														
☆5. Carry-forward of other comprehensive income for retained earnings														
6. Others														
IV. Balance as at December 31 of the current year	35,000,000,000.00		27,844,116,792.42		7,280,829,950.00		-858,628,312.05	164,608,077.54			4,890,541,133.61	74,321,467,641.52	159,473,470,516.77	233,794,938,158.29

Remarks: items marked with △ are for financial companies purpose only; items marked with # are for foreign-funded companies purpose only; and items marked with ☆ are used for enterprises adopting new revenue/lease/financial instruments standards.

The accompanying notes to the financial statements are integral parts of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Statement of Changes in Owners' Equity of the Parent Company
Year 2019
(Amounts are expressed in RMB unless otherwise stated)

Item	Year 2019											
	Paid-in capital (or share capital)	Other equity instruments			Capital reserve	Less: treasury stock	Other comprehensive income	Special reserve	Surplus reserve	△General risk reserve	Undistributed profits	Total owners' equity
		Preferred stock	Perpetual capital securities	Others								
I. Balance as at December 31 of last year	35,000,000,000.00		27,844,116,792.42		766,936,862.40						10,990,521,807.64	74,601,575,462.46
Plus: adjustments for changes in accounting policies												
Adjustments for correction of accounting errors in prior year												
Others												
II. Balance as at January 1 of the current year	35,000,000,000.00		27,844,116,792.42		766,936,862.40						10,990,521,807.64	74,601,575,462.46
III. Increases/decreases in the current year ("-" for decreases)			24,922,068,962.17		-153,578,001.90		1,358,542,879.82				4,490,809,496.82	30,617,843,336.91
(I) Total comprehensive income							1,358,542,879.82				6,116,040,788.38	7,474,583,668.20
(II) Capital contributed or reduced by owners			24,922,068,962.17		-153,578,001.90							24,768,490,960.27
1. Capital contributed by owners					63,170,000.00							63,170,000.00
2. Capital invested by the holders of other equity instruments			24,922,068,962.17									24,922,068,962.17
3. Amounts of share-based payments recognized in owner's equity												
4. Others					-216,748,001.90							-216,748,001.90
(III) Withdrawal and use of special reserves												
1. Withdrawal of special reserves												
2. Use of special reserves												
(IV) Profit distribution											-1,625,231,291.56	-1,625,231,291.56
1. Withdrawal of surplus reserves												
Including: statutory												

Item	Year 2019											
	Paid-in capital (or share capital)	Other equity instruments			Capital reserve	Less: treasury stock	Other comprehensive income	Special reserve	Surplus reserve	△General risk reserve	Undistributed profits	Total owners' equity
		Preferred stock	Perpetual capital securities	Others								
reserve funds												
Discretionary reserve funds												
#Reserve funds												
#Enterprise expansion funds												
#Profit capitalized on return of investments												
△2. Withdrawal of general risk reserve												
3. Distribution to owners (or shareholders)											-257,304,200.00	-257,304,200.00
4. Others											-1,367,927,091.56	-1,367,927,091.56
(V) Internal carry-forward of owners' equity												
1. Conversion of capital reserves into paid-in capital												
2. Conversion of surplus reserves into paid-in capital												
3. Surplus reserves offsetting losses												
4. Carry-forward of changes in the defined benefit plan for retained earnings												
☆5. Carry-forward of other comprehensive income for retained earnings												
6. Others												
IV. Balance as at December 31 of the current year	35,000,000,000.00		52,766,185,754.59		613,358,860.50		1,358,542,879.82				15,481,331,304.46	105,219,418,799.37

Remarks: items marked with △ are for financial companies purpose only; items marked with # are for foreign-funded companies purpose only; and items marked with ☆ are used for enterprises adopting new revenue/lease/financial instruments standards.

The accompanying notes to the financial statements are integral parts of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

State Power Investment Corporation Limited
Statement of Changes in Owners' Equity of the Parent Company (Continued)
Year 2019
(Amounts are expressed in RMB unless otherwise stated)

Item	Year 2018											
	Paid-in capital (or share capital)	Other equity instruments			Capital reserve	Less: treasury stock	Other comprehensive income	Special reserve	Surplus reserve	△General risk reserve	Undistributed profits	Total owners' equity
		Preferred stock	Perpetual capital securities	Others								
I. Balance as at December 31 of last year	35,000,000,000.00		17,855,674,150.92		727,118,783.30						9,888,155,071.83	63,470,948,006.05
Plus: adjustments for changes in accounting policies												
Adjustments for correction of accounting errors in prior year												
Others												
II. Balance as at January 1 of the current year	35,000,000,000.00		17,855,674,150.92		727,118,783.30						9,888,155,071.83	63,470,948,006.05
III. Increases/decreases in the current year ("-" for decreases)			9,988,442,641.50		39,818,079.10						1,102,366,735.81	11,130,627,456.41
(I) Total comprehensive income											2,007,719,561.29	2,007,719,561.29
(II) Capital contributed or reduced by owners			9,988,442,641.50		39,818,079.10							10,028,260,720.60
1. Capital contributed by owners					43,050,000.00							43,050,000.00
2. Capital invested by the holders of other equity instruments			9,988,442,641.50									9,988,442,641.50
3. Amounts of share-based payments recognized in owner's equity												
4. Others					-3,231,920.90							-3,231,920.90
(III) Withdrawal and use of special reserves												
1. Withdrawal of special reserves												
2. Use of special reserves												
(IV) Profit distribution											-905,352,825.48	-905,352,825.48
1. Withdrawal of surplus reserves												
Including: statutory reserve funds												
Discretionary reserve funds												
#Reserve funds												
#Enterprise expansion												

Item	Year 2018											
	Paid-in capital (or share capital)	Other equity instruments			Capital reserve	Less: treasury stock	Other comprehensive income	Special reserve	Surplus reserve	△General risk reserve	Undistributed profits	Total owners' equity
		Preferred stock	Perpetual capital securities	Others								
funds												
#Profit capitalized on return of investments												
△2. Withdrawal of general risk reserve												
3. Distribution to owners (or shareholders)												
4. Others											-905,352,825.48	-905,352,825.48
(V) Internal carry-forward of owners' equity												
1. Conversion of capital reserves into paid-in capital												
2. Conversion of surplus reserves into paid-in capital												
3. Surplus reserves offsetting losses												
4. Carry-forward of changes in the defined benefit plan for retained earnings												
☆5. Carry-forward of other comprehensive income for retained earnings												
6. Others												
IV. Balance as at December 31 of the current year	35,000,000,000.00		27,844,116,792.42		766,936,862.40						10,990,521,807.64	74,601,575,462.46

Remarks: items marked with △ are for financial companies purpose only; items marked with # are for foreign-funded companies purpose only; and items marked with ☆ are used for enterprises adopting new revenue/lease/financial instruments standards.

The accompanying notes to the financial statements are integral parts of the financial statements.

Legal Representative: Accounting Principal: Head of the Accounting Department:

STATE POWER INVESTMENT CORPORATION LIMITED
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2019
(Amounts herein are expressed in Renminbi unless otherwise stated)

1. Company profile

State Power Investment Corporation Limited (hereinafter referred to as the "Group Company", "the Group", "the Company" or the "Company") was established in June 2015 through the reorganization of China Power Investment Corporation and State Nuclear Power Technology Corporation.

China Power Investment Corporation is a state-owned enterprise established based on partial enterprises and public institutions of the former State Power Corporation in accordance with the Official Reply of the State Council to Issues concerning the Establishment of China Power Investment Corporation (GH [2003] No. 17) in the process of national electricity system reform, a pilot institution and national holding company in which the State Council agrees to authorize the investment and one of the five largest state-owned power generation enterprise groups. It was formally established on December 29, 2002 pursuant to the spirit of the Circular of the State Council on Issuing the Plan for the Power System Reform (GF [2002] No. 5). In December 2017, the Group Company was transform from an enterprise owned by the whole people to a wholly state-owned company. According to the Official Reply of the State-owned Assets Supervision and Administration Commission of the State Council (GZGG [2017] No. 1090), the registered capital was adjusted from RMB 45 billion to RMB 35 billion.

Approved by the State Council, State Nuclear Power Technology Corporation is a limited liability company jointly invested and established by the State-owned Assets Supervision and Administration Commission of the State Council, China National Nuclear Corporation, China Power Investment Corporation (now renamed as "State Power Investment Corporation Limited"), China Guangdong Nuclear Power Group Co., Ltd. (now renamed as "China General Nuclear Power Corporation") and China National Technical Imp. & Exp. Corp. in May 2007 in Beijing by and China National Nuclear Corporation, China Power Investment Corporation (now renamed "State Power Investment Corporation"), A China Guangdong Nuclear Power Group Co., Ltd. (now renamed "China General Nuclear Power Group Co., Ltd.") and China National Technical Imp. & Exp. Corp.

The Group Company is located at Building 3, Courtyard 28, Financial Street, Xicheng District, Beijing; legal representative: Qian Zhimin; registered capital: RMB 35 billion; unified social credit code: 911100007109310534.

The Group Company is an integrated energy group with power as its core. It has a total installed capacity of 151 GW, including 81.41 GW of thermal power, 23.94 GW of hydropower, 6.98 GW of nuclear power, 19.29 GW of solar power and 19.32 GW of wind power, with clean energy accounting for 50.54% of the total, with the scale of clean energy greater than that of coal-fired power for the first time. It supplies 553.8 billion kWh of power and 210 million GJ of heat per annum. It also owns a coal production capacity of 84.3 million tons per year (t/y), aluminum smelting capacity of 2.514 million t/y and railway transportation line of 627 km.

Being one of China's three nuclear power developers and operators, the Group Company owns a number of nuclear power plants (NPPs) under construction or in operation, such as Hongyanhe NPP in Liaoning Province, and Haiyang and Rongcheng NPPs in Shandong Province. It has also reserved several project sites in both inland and coastal areas of China.

It has presence in 43 countries such as Japan, Australia, Malta, India, Turkey, South Africa, Pakistan, Brazil and Myanmar, with businesses covering power project investment, technical cooperation, EPC, etc. It has 3.64 GW of controllable overseas projects in operation and 12.4 GW under construction.

It has 5 A-share listed companies: Shanghai Electric Power Co., Ltd. (600021), State Power Investment Corporation Yuanda Environmental Protection Co., Ltd. (600292), Jilin Electric Power Co., Ltd. (000875), Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia (002128) and SPIC Dongfang New Energy Corporation (000958); it owns one red chip: China Power International Development Limited (HK2380); it owns 3 companies listed on the NEEQ: China Kangfu International Leasing Co., Ltd. (833499), SPIC Xianrong Futures Co., Ltd. (870115) and SPIC Guizhou Jinyuan Weining Energy Co., Ltd. (Weining Energy 873359).

The financial report of the Company was approved for disclosure at the 6th meeting of the second Board of Directors on April 29, 2020.

2. Basis of preparation for financial statements

The Company's financial statements are prepared on the going-concern basis.

The Company prepares the financial statements according to the transactions and events actually occurred and based on the recognition and measurement in accordance with the Accounting Standards for Business Enterprises - Basic Standard and specific accounting standards promulgated by the Ministry of Finance and the Accounting Standard for Business Enterprises - Application Guidance and the Interpretations for the Accounting Standards for Business Enterprises issued thereafter and other relevant provisions (hereinafter collectively referred to as Accounting Standards for Business Enterprises).

3. Statement on compliance with Accounting Standards for Business Enterprises

The financial statements meet the requirements of the Accounting Standards for Business Enterprises, and truly and completely reflect the consolidated financial position and the financial position of the parent company as at December 31, 2019, and the consolidated operating results and the operating results of the parent company, the consolidated cash flows and the cash flows of the parent company for the year then ended.

4. Significant accounting policies and accounting estimates

In 2017, the Ministry of Finance promulgated the revised Accounting Standards for Business Enterprises No. 22 - Recognition and Measurement of Financial Instruments, Accounting Standards for Business Enterprises No. 23 - Transfer of Financial Assets, Accounting Standards for Business Enterprises No. 24 - Hedge Accounting and Accounting Standards for Business Enterprises No. 37 - Presentation of Financial Instruments (Revised in 2017) (hereinafter referred to as the "New Standards for Financial Instruments"). According to the New Standards for Financial Instruments, the companies listed at home and abroad at the same time and those which are listed abroad and prepare financial reports according to the International Financial Reporting Standards or the Accounting Standards for Business Enterprises shall implement the New Standards for Financial Instruments as of January 1, 2018; other companies listed at home will implement the New Standards for Financial Instruments as of January 1, 2019; non-listed companies that implement Accounting Standards for Business Enterprises will implement New Standards for Financial Instruments as of January 1, 2021. At the same time, enterprises are encouraged to implement the New Standards for Financial Instruments in advance.

In 2017, the Ministry of Finance promulgated the revised Accounting Standards for Business Enterprises No. 14 - Revenues (hereinafter referred to as the "New Standards for Revenues"). According to the New Standards for Revenues, the companies listed at home and abroad at the same time and those which are listed abroad and prepare financial reports according to the International Financial Reporting Standards or the Accounting Standards for Business Enterprises shall implement the New Standards for Revenues as of January 1, 2018; other companies listed at home will implement the New Standards for Revenues as of January 1, 2020; non-listed companies that implement Accounting Standards for Business Enterprises will implement New Standards for Revenues as of January 1, 2021. At the same time, companies are allowed to implement the New Standards for Revenues in advance.

In 2018, the Ministry of Finance promulgated the revised Accounting Standards for Business Enterprises No. 21 - Leases (hereinafter referred to as the "New Standards for Leases"). According to the New Standards for Leases, the companies listed at home and abroad at the same time and those which are listed abroad and prepare financial reports according to the International Financial Reporting Standards or the Accounting Standards for Business Enterprises shall implement the New Standards for Leases as of January 1, 2019; other companies that implement Accounting Standards for Business Enterprises will implement New Standards for Revenues as of January 1, 2021. The enterprises whose parent company or subsidiary is listed overseas and whose overseas financial statements are prepared in accordance with International Financial Reporting Standards or Accounting Standards for Business Enterprises may implement these Standards in advance, but not earlier than the date when they simultaneously implement the New Standards for Financial Instruments and the New Standards for Revenues.

According to the Ministry of Finance 's Notice on Revising and Issuing the Accounting Standards for Business Enterprises No. 14 - Revenue and other relevant provisions, where the parent company implements the New Standards but the subsidiary has not yet implemented the same, the parent company shall adjust the financial statements of subsidiaries in accordance with the New Standards when preparing the consolidated financial statements. Where the parent company has not implemented the New Standards but the subsidiary has done so, when preparing the consolidated financial statements, the parent company may either consolidate the subsidiary's financial statements in accordance with the parent company's accounting policies or directly consolidate the subsidiary's financial statements prepared in accordance with the New Standards. If the parent company adopts the latter, the facts shall be disclosed in the consolidated financial statements, and the accounting policies of the parent company and the subsidiary and other relevant information shall be disclosed separately.

The Company and its subsidiaries within the scope of consolidation implement the New Standards as follows:

Name of company	New Standards for Financial Instruments	New Standards for Revenues	New Standards for Leases
State Power Investment Corporation Limited (the parent company)	Not yet implemented	Not yet implemented	Not yet implemented
China Power International Development Limited	Implemented from January 1, 2018	Implemented from January 1, 2018	Implemented from January 1, 2019
Shanghai Electric Power Co., Ltd.	Implemented from January 1, 2019	Not yet implemented	Not yet implemented
State Power Investment Corporation Yuanda Environmental Protection Co., Ltd.	Implemented from January 1, 2019	Not yet implemented	Not yet implemented
Jilin Electric Power Co., Ltd.	Implemented from January 1, 2019	Not yet implemented	Not yet implemented
Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia	Implemented from January 1, 2019	Not yet implemented	Not yet implemented
SPIC Dongfang New Energy Corporation	Implemented from January 1, 2019	Not yet implemented	Not yet implemented
China Kangfu International Leasing Co., Ltd.	Implemented from January 1, 2019	Not yet implemented	Not yet implemented
SPIC Xianrong Futures Co., Ltd.	Implemented from January 1, 2019	Not yet implemented	Not yet implemented
SPIC Guizhou Jinyuan	Implemented from	Not yet implemented	Not yet implemented

Name of company	New Standards for Financial Instruments	New Standards for Revenues	New Standards for Leases
Weining Energy Co., Ltd.	January 1, 2019		
SPIC Pacific Energy Pty Ltd	Implemented from January 1, 2018	Implemented from January 1, 2018	Implemented from January 1, 2019
SPIC Brazil Energia Participaçoes S.A.	Implemented from January 1, 2018	Implemented from January 1, 2018	Implemented from January 1, 2019
Other companies	Not yet implemented	Not yet implemented	Not yet implemented

When preparing consolidated financial statements, the Company directly consolidates the financial statements prepared by subsidiaries in accordance with the New Standards.

4.1 Accounting period

The accounting year is from January 1 to December 31.

4.2 Functional currency

The functional currency is RMB.

The Company's subsidiaries, joint ventures and associates determine their functional currencies by themselves in accordance with the main economic environment in which they operates and convert the accounts into the amount in RMB upon preparation of financial statements.

4.3 Accounting basis and measurement principle

Accounting shall be made on accrual basis and in the valuation principle of historical cost unless otherwise specified.

4.4 Business combination

Business combinations are classified into business combination under common control and business combination not under common control.

4.4.1 Business combination under common control

Assets and liabilities acquired from business combination by the acquirer are measured at book value of assets and liabilities of the acquiree in the financial statements of the ultimate controller on the combination date. Where accounting policies adopted by all acquirees are inconsistent with those of the acquirer, the acquirer adjusts the former according to those of the Company on the combination date and recognizes such assets and liabilities at the adjusted book value.

The stock premium in the capital reserves should be adjusted at the difference between the book value of the net assets acquired in combination and that of consideration paid for the combination (or total par value of shares issued). If the stock premium in the capital reserves is insufficient to cover the difference, the retained earnings should be adjusted.

Expenses incurred directly related to the business combination are included in the current profit or loss when they occur.

Handling fees and commissions, etc. paid for bonds issued for business combinations or undertaken for other debts are included in the initial measurement amount of the bonds issued and other debts. The handling charges, commissions and other expenses for the issuance of equity securities for the business combination shall be deducted from premium income of the equity securities; if the premium income is not sufficient, the remaining amount shall be deducted from retained earnings.

The Company prepares the consolidated balance sheet, the consolidated income statement and consolidated cash flow statement on the combination date, among which the consolidated income statement shall include the income, expenses and profits of all combined parties incurred from the beginning of the combination to the combination date. The consolidated statement of cash flows shall include the cash flows of the parties to the combination from the beginning of the current period to the combination date.

4.4.2 Business combination not under common control

The acquirer shall, on the acquisition date, measure the assets paid for the consideration and liabilities incurred or assumed for a business combination at their fair values. The difference between the fair value and the book value shall be included in current profit or loss. The Company shall recognize the difference of the combination costs in excess of the fair value of the identifiable net assets acquired from the acquiree as goodwill. The Company shall recognize the difference of the combination costs in short of the fair value of the identifiable net assets acquired from the acquiree in the current profit or loss.

Under business combination not under the common control, the expenses directly caused to the acquirer for business combination shall be included in current profit or loss upon occurrence; the transaction costs for the issuance of equity securities or debt securities for business combination shall be included in the initial recognition amount of such equity securities or debt securities.

When the acquirer prepares the consolidated balance sheet on the acquisition date, the acquiree's identifiable assets, liabilities and contingent liabilities acquired from business combination shall be presented at fair values.

4.4.3 Recognition method of acquisition date or selling date

For the increase or decrease of subsidiaries due to purchase and sales not under common control, the basic principle to determine the acquisition date or disposal date is to judge the timing of control transfer. Specifically:

Method of determining the acquisition date

It can be judged that the control has been transferred when all of the following conditions are met:

1) Enterprise purchase contract or agreement has been approved by a general meeting and other internal authority for examination and approval;

2) In accordance with the provisions, acquisition matters shall be approved by the relevant national competent departments;

3) The necessary property rights transfer formalities have been handled;

4) The acquirer has paid most (generally over 50%) of the purchase price and has the ability to repay the remaining payment in a planned way;

5) The acquirer actually has taken control of the acquiree's financial and operating policies and enjoys the corresponding benefits and bears the corresponding risks.

Method of determining the sale date: generally speaking, loss of control after the end of the transaction shall be the selling time.

4.4.4 Method of determining the fair value on the combination date

Where there is an active market, fair value is to be recognized at the quoted price in the active market; where there is no active market, the fair value is to be recognized at reasonable valuation techniques, such as reference to the price to be used in the transactions between knowledgeable and willing parties in recent market transactions, or the current fair value of other substantially identical assets or liabilities, or determined by using discounted cash flow and options pricing model.

4.5 Preparation method of consolidated financial statements

4.5.1 Consolidation scope

The consolidation scope of consolidated financial statements is determined on the basis of control, including the financial statements of the Company and all the subsidiaries.

"Control" means that the company has the right to be invested by the investor, and has the ability to enjoy the variable returns by participating in the relevant activities of the investor, and the ability to use the right of the investor to affect the company's return. Related activities mean the activities generating significant impact on the return of the investee. Judged in accordance with the specific circumstances, they usually include the sales and purchase of goods or services, management of financial assets, purchase and disposal of assets, research and development activities and financing activities etc.. The Company judges whether it controls the investee based on considering all relevant facts and circumstances. Once the relevant facts and circumstances change, leading to changes in the factors relating to the control, the Company will carry out a reappraisal.

4.5.2 Consolidation procedures

The Company prepares the consolidated financial statements based on its own financial statements and those of its subsidiaries, and other relevant information. In preparing the consolidated financial statements, the Company deems the whole enterprise group as a single accounting entity to reflect the overall financial position, operating results and cash flows in accordance with relevant recognition, measurement and presentation requirements of the Accounting Standards for Business Enterprises and the uniform accounting policies.

Accounting policies and accounting periods adopted by all subsidiaries included in the consolidation scope of the consolidated financial statements should be consistent with those of the Company. If accounting policies and accounting periods adopted by all subsidiaries are inconsistent with those of the Company, in the preparation of the consolidated financial statements, necessary adjustments shall be made according to the accounting policies and accounting periods of the Company. For the subsidiaries acquired through business combinations not under common control, adjustments to their financial statements shall be made based on the fair values of net identifiable assets on the acquisition date. For subsidiaries acquired through business combinations under common control, adjustments shall be made to their financial statements based on the book value of their assets and liabilities (including the goodwill formed from the acquisition of the subsidiaries by the ultimate controller) in the financial statements of the ultimate controller.

The share attributable to minority shareholders in the owner's equity, net profit or loss in the current year and comprehensive income in the current year should be separately presented under the item of owner's equity in the Consolidated Balance Sheet, under the item of net profit and under the item of total comprehensive income in the Consolidated Income Statement. If the current losses attributable to the minority shareholders of a subsidiary exceed the owners' equity attributable to minority shareholders of the subsidiary at the beginning of the period, the excess shall be deducted from the minority equity of the Company.

(1) Increase in subsidiaries or business

During the reporting period, if the Company increased subsidiaries or business from business combinations under common control, the beginning balance of the consolidated balance sheet shall be adjusted; the incomes, expenses and profits from the beginning of the current year of the combinations of the subsidiaries or business to the end of the reporting period shall be included in the consolidated income statement; cash flows from the beginning of the current year of the combinations of the subsidiaries or business to the end of the reporting period shall be included in the consolidated statement of cash flows. Relevant items in the comparative financial statements of the subsidiaries shall be adjusted accordingly, as if the reporting entity after the business combination exists when the ultimate controller starts its control.

Where control can be exercised on the investee under common control for additional investment or other reasons, adjustment shall be made as if all parties involved in the combination exist at the beginning of the control by the ultimate controller. For equity investments held before obtaining the right of control over the combined party, the related profit or loss, other comprehensive income as well as other changes in net assets recognized, from the later of the date when the original equity was obtained and the date when the combining party and the combined party were under common control to the combination date, shall be respectively offset against the opening retained earnings or the current profit or loss during the reporting period of the comparative statements.

During the reporting period, if the Company increased subsidiaries or business from business combinations not under common control, the beginning balance in the consolidated balance sheet shall not be adjusted; the incomes, expenses and profits of the subsidiaries or business from the acquisition date to the end of the reporting period shall be included in the consolidated income statement; cash flows of the subsidiaries and business from the acquisition date to the end of the reporting period shall be included in the consolidated statement of cash flows.

Where the Company can exercise control over the investee not under common control due to additional investment or other reasons, the equities of the acquiree held before the acquisition date shall be remeasured at the fair value of the equities on the acquisition date, and the difference between the fair value and the book value shall be included in the current investment income. Where the equities of the acquiree held prior to the acquisition date involve in other comprehensive income accounted for under the equity method and other changes in owners' equity except for net profit or loss, the relevant other comprehensive income and other changes in the owner's equity shall be transferred to the investment income of the period to which the acquisition date belongs, except for other comprehensive income arising from changes in net liabilities or net assets due to the re-measurement of defined benefits plan by the investee.

(2) Disposal of subsidiaries or business

① General method of disposal

During the reporting period, if the Company disposes subsidiaries or business, the incomes, expenses and profits from the subsidiaries or business from the beginning of the year to the disposal date shall be included in the consolidated income statement; cash flows of the subsidiaries and business from the beginning of the year to the disposal date shall be included in the consolidated statement of cash flows.

When the Company losses the control over the investee due to disposal of partial equity investments or other reasons, the remaining equity investments after the disposal shall be re-measured by the Company at the fair value on the date of loss of the control. The difference of the sum of the consideration acquired from disposal of equities and the fair value of the remaining equities less the sum of the share calculated at the original shareholding ratio in net assets of the original subsidiary which are continuously calculated as of the acquisition date or the combination date and goodwill shall be included in the investment income of the period when the control is lost. other comprehensive income related to the equity investments of the original subsidiary or changes in other owners' equity excluding net profit or loss, other comprehensive income and profit distribution shall be transferred in the investment income when the right of control is lost, except for other comprehensive income arising from changes in net liabilities or net assets due to the re-measurement of defined benefits plan by the investee.

Where the Company loses the right of control due to the decline in its proportion of shareholding caused by the increase of investment in subsidiaries by other investors, accounting treatment should be conducted according to the above principles.

② Disposal of subsidiaries by stages

Where the Company disposes the equity investments in subsidiary through multiple transactions and by stages until it loses the control, if the effect of the disposal on the terms and conditions of all transactions of equity investments in subsidiary and economic effect meet one or more of the following circumstance, it usually indicates that the multiple transactions should be accounted for as a package deal:

i. The transactions are concluded at the same time or under the consideration of mutual effect;

ii. The transactions as a whole can reach a complete business result;

iii. The occurrence of a transaction depends on that of at least one other transactions; and/or

iv. A single transaction is uneconomical but it is economical when considered together with other transactions.

Where various transactions of disposal of equity investments in subsidiaries until loss of the control belong to a package deal, accounting treatment shall be made by the Company on the transactions as a transaction to dispose subsidiaries and lose the control; however, the difference between each disposal cost and net asset share in the subsidiaries corresponding to each disposal of investments before loss of the control should be recognized as other comprehensive income in the consolidated financial statements and should be transferred into the current profit or loss at the loss of the control.

Where various transactions of disposal of equity investments in subsidiaries until loss of the control do not belong to a package deal, before the loss of the control, accounting treatment shall be made according to the relevant policies for partial disposal of equity investments in the subsidiary without losing control; at the loss of the control, accounting treatment shall be made according to general treatment methods for disposal of subsidiaries.

(3) Purchase of minority equity of subsidiaries
The difference between long-term equity investments acquired by the Company through purchase of minority interest and the subsidiary's identifiable net assets attributable to the Company calculated continuously from the acquisition date (or the combination date) in accordance with the increased shareholding ratio shall be charged against stock premium within capital reserves in the consolidated balance sheet; when stock premium within capital reserves is insufficient to offset, the retained earnings shall be adjusted.

(4) Partial disposal of long-term equity investments in the subsidiary without losing control
The difference between the proceeds from partial disposal of equity investments in the subsidiary and the share of identifiable net assets of the subsidiary attributable to the Company which are calculated continuously from the acquisition date (or the combination date) and which are corresponding to the disposal of long-term equity investments without losing control shall be charged against stock premium within capital reserves in the consolidated balance sheet; when stock premium within capital reserves is insufficient to offset, the retained earnings shall be adjusted.

4.6 Classification of joint venture arrangements and accounting treatment methods of joint operation

Joint venture arrangements are classified into joint operation and joint venture. If the Company is a joint venture under the joint arrangement, and enjoys assets related to this arrangement and undertakes liabilities related to this arrangement, it is under a joint operation.

The Company recognizes the following items related to interest shares in the joint operation, and carries out the accounting treatment according to relevant Accounting Standards for Business Enterprises:

(1) Assets peculiar to the Company and assets jointly owned by the Company based on shares held;

(2) Liabilities undertaken by the Company and liabilities jointly undertaken by the Company based on shares held;

(3) Income from selling production shares of joint operation enjoyed by the Company;

(4) Income from selling the production of joint operation recognized based on the shares held by the Company; and

(5) Separate costs and costs for the joint operation based on its percentage.

See Note 4.14 "Long-term equity investments" for accounting policies of the Company for investments in joint ventures.

4.7 Recognition criteria of cash and cash equivalents

For the purpose of preparing the statement of cash flows, the term "cash" refers to the cash on hand and the unrestricted deposit of the Company. The term "cash equivalents" refers to short-term (maturing within three months from acquisition) and highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of change in value.

4.8 Foreign currency transactions and translation of foreign currency financial statements

4.8.1 Foreign currency transactions

Foreign currency transactions of the Company are converted into RMB at the spot exchange rate on the day when the transaction occurs.

At the end of the period, the foreign currency monetary items are converted at the spot exchange rate on the balance sheet date. The exchange differences arising from different exchange rates (the spot exchange rate on the balance sheet date and that upon the initial recognition or the preceding balance sheet date) shall be included in the current profit or loss; foreign currency non-monetary items measured at historical cost shall still be converted at the spot exchange rates on the date when the transactions occur; foreign currency non-monetary items measured at fair value shall be converted at the spot exchange rates on the date when the fair value is determined. For the exchange differences arising therefrom, those of the equity instrument investments attributable to other comprehensive income measured at fair value through current profit and loss shall be included in other comprehensive income and other differences shall be included in the current profit or loss.

4.8.2 Translation of foreign currency financial statements

When the Company measures the foreign currency financial statements of its overseas operations, the assets and liabilities in the balance sheet are translated at the spot exchange rates on the balance sheet date; owners' equity items, except for the item of "undistributed profits", are translated at the spot exchange rates on the date when the operations occur.

The income and expenses items in the income statement are translated at the spot exchange rate prevailing on the date when transactions occur.

All items in the income statement shall be converted at the spot exchange rates on the date of occurrence of cash flows. Effect of exchange rate changes on cash will be separately presented in the "Effect of fluctuation in exchange rate on cash and cash equivalents" in the statement of cash flows.

Differences arising from such translation of financial statements are separately disclosed as "other comprehensive income" under owners' equity in the balance sheet. Where the Company disposes of an overseas business, it shall transfer the exchange difference relating to the overseas business to the current profit or loss from other comprehensive income.

4.9 Financial instruments

Financial instruments of the Company include financial assets, financial liabilities and equity instruments.

Companies that have not yet implemented the New Standards for Financial Instruments

4.9.1 Classification of financial instruments

Upon initial recognition, financial liabilities are classified into: Financial assets and financial liabilities measured at fair value through current profit and loss, including financial assets or financial liabilities held for trading and financial assets or financial liabilities directly designated to be measured at fair value through current profit and loss; held-to-maturity investments; receivables; available-for-sale financial assets; and other financial liabilities, etc.

4.9.2 Recognition basis and measurement methods of financial instruments

(1) Financial assets (financial liabilities) measured at fair value through current profit and loss

Financial assets (financial liabilities) measured at fair value through current profit and loss are initially recognized at the fair value upon acquisition (net of cash dividends declared but not yet paid or bond interest due but not yet received) and the related transaction costs are included in current profit and loss.

The interest or cash dividends to be received during the holding period is or are recognized as investment income. Change in fair values is included in the current profit and loss at the end of the period.

Difference between the fair value and initial book-entry value is recognized as investment income upon disposal; meanwhile, adjustment is made to gains or losses from changes in fair values.

(2) Held-to-maturity investments

Held-to-maturity investments are initially recognized at the sum of the fair value (net of bond interest due but not yet received) and related transaction costs upon acquisition.

The interest income will be calculated and determined according to the amortized cost and effective interest rate (coupon rate if there is minor difference between effective interest rate and coupon rate) during the holding period and included in investment income. The effective interest rates are determined upon acquisition and remain unchanged during the expected remaining period, or a shorter period if applicable.

Upon disposal, the difference between the purchase price obtained and the book value of the investment is recognized in investment income.

(3) Receivables

For creditor’s rights receivable arising from external sales of goods or rendering of service by the Company and other creditor's rights of other enterprises (excluding liability instruments quoted in an active market) held by the Company, including accounts receivable and other receivables, the initial recognition amount shall be the contract price or agreement price receivable from purchasing party. Receivables with financing nature are initially recognized at their present values.

The difference between the amount received and the book value of the accounts receivable is included in the current profit and loss upon recovery or disposal.

(4) Available-for-sale financial assets

Available-for-sale financial assets are initially recorded at the sum of fair values (deducting cash dividends that have been declared but not distributed and bond interest that have matured but not been drawn) and relevant transaction costs when acquired.

The interest or cash dividends to be received during the holding period is or are recognized as investment income. The interest or cash dividends should be measured at fair value and their changes in fair value should be included in other comprehensive income. However, for an equity instrument investment that has no quoted price in an active market and whose fair value cannot be reliably measured, and for derivative financial asset linked to the said equity instrument investment and settled by delivery of the same equity instrument, they shall be measured at cost.

Difference between the proceeds and the book value of the financial assets is recognized as investment income upon disposal; meanwhile, amount of disposal corresponding to the accumulated change in fair value which is originally and directly included in other comprehensive income shall be transferred out and recognized as the current profit and loss.

(5) Other financial liabilities
They are initially recognized at the sum of the fair value and the associated transaction costs and subsequently measured at amortized cost.

4.9.3 Recognition basis and measurement method of transfer of financial assets

Upon occurrence of transfer of a financial asset, the Company shall de-recognize the financial asset if nearly all the risks and rewards associated with the ownership of the financial asset have been transferred to the transferee; and shall not de-recognize the financial asset if nearly all the risks and rewards associated with the ownership of the financial asset are retained.

When determining whether the transfer of a financial asset meets the above de-recognition criteria of financial assets, the Company adopts the principle of substance over form. The Company classifies the transfer of a financial asset into entire transfer and partial transfer. If the entire transfer of financial asset satisfies the criteria for de-recognition, the difference between the amounts of the following two items shall be included in the current profit or loss:

(1) The book value of the transferred financial asset;

(2) The sum of the consideration received from the transfer and the accumulated amount of the changes in fair value originally and directly included in owners' equity (the situation where the financial asset transferred is an available-for-sale financial asset is involved in).

If the partial transfer of financial asset satisfies the criteria for de-recognition, the entire book value of the transferred financial asset shall be split into the de-recognized and recognized part according to their respective fair value and the difference between the amounts of the following two items shall be included in the current profit or loss:

(1) The book value of the de-recognized part;

(2) The sum of the consideration for the derecognized part and the portion of derecognition corresponding to the accumulated amount of the changes in fair value originally and directly included in owners' equity (the situation where the financial asset transferred is an available-for-sale financial asset is involved in).

If the transfer of a financial asset does not meet the de-recognition criteria, the financial asset shall continue to be recognized, and the consideration received will be recognized as a financial liability.

4.9.4 De-recognition criteria of financial liabilities

The financial liabilities shall be wholly or partly de-recognized if their present obligations are wholly or partly dissolved. Where the Company enters into an agreement with a creditor so as to substitute the existing financial liability with any new financial liability, and the new financial liability is substantially different from the existing one in terms of contractual terms, it shall de-recognize the existing financial liabilities, and shall at the same time recognize new financial liabilities.

Where substantial revisions are made to some or all of the contractual stipulations of the existing financial liability, the Company shall de-recognize the existing financial liability wholly or partly, and at the same time recognize the financial liability with revised contractual stipulations as a new financial liability.

Upon whole or partial de-recognition of financial liabilities, the difference between the book value of the financial liabilities de-recognized and the consideration paid (including non-cash assets transferred out or new financial liabilities assumed) shall be included in the current profit or loss.

Where the Company repurchases part of a financial liability, the entire book value of the financial liability shall be split into the de-recognized part and continuously-recognized part according to their respective fair value on the repurchase date. The difference between the book value of the de-recognized part and the consideration paid (including non-cash assets surrendered or new financial liabilities assumed) shall be included in the current profit or loss.

4.9.5 Determination method for the fair value of financial assets and financial liabilities

Fair value of a financial instrument having an active market is determined on the basis of quoted prices in the active market. Fair value of a financial instrument having no active market shall be determined by using valuation techniques. At the time of valuation, the Company adopts the valuation techniques that are applicable in the current situation and supported by enough available data and other information, selects the input values that are consistent with the features of assets or liabilities as considered by market participants in relevant asset or liability transactions, and gives priority to use relevant observable inputs. Unobservable input values are used only when relevant observable input values cannot be available or such values obtained are infeasible.

4.9.6 Test method and accounting treatment for impairment of financial assets (excluding receivables)

Except for the financial assets measured at fair values through current profit or loss, the book value of financial assets on the balance sheet date should be checked. If there is objective evidence that a financial asset is impaired, provision for impairment shall be made.

(1) Provision for impairment of available-for-sale financial assets:
If the fair value of available-for-sale equity instruments investment has significantly declined at the end of the period, or it is expected that the trend of decrease in value is non-temporary after considering various relevant factors, the impairment shall be recognized, and accumulated losses from decreases in fair value originally and directly included in other comprehensive income shall be all transferred out and recognized as impairment loss.

For available-for-sale debt instruments whose impairment losses have been recognized, if their fair values rise in the subsequent accounting period and such rise is objectively related to the matters occurring after the recognition of impairment loss, the previously recognized impairment loss shall be reversed and recorded into the current profit or loss.

Impairment losses from the investment in available-for-sale equity instruments should not be reversed through the profit or loss.

(2) Provision for impairment of held-to-maturity investments:
Measurement of provision for impairment loss on held-to-maturity investments is treated by reference to the measurement method of impairment loss on receivables.

Objective evidence indicating that any financial asset has impaired include the following items which can be observed:

① The issuer or debtor suffers severe financial difficulties;

② The debtor breaches the relevant contract, such as default or delay in repayment of interest or principal;

③ The Group gives concessions to the debtor with financial difficulties after considering economic or legal factors;

④ The debtor is likely to close down or go through other financial reorganization;

⑤ The issuer suffers major financial difficulties, resulting that financial assets are difficult to be continuously traded in an active market;

⑥ It is unable to identify whether cash flows of an asset in a portfolio of financial assets have reduced, but according to the overall assessment on the financial assets based on public data, it is found that expected future cash flows of such portfolio of financial assets have reduced and can be measured in the period following the date of initial recognition, including:
- The debtor's ability to pay such financial assets has gradually deteriorated;

- The economy of the country or region where the debtor is located has encountered any situation which may cause the failure in payment for such financial assets;

⑦ There are significant adverse changes in technology, market, economy or legal environment and others in the debtor's business placement, resulting that the investor in the equity instrument may not be able to recover the investment cost;

⑧ The fair value of the equity instrument investment has a significant or non-temporary decline, that is, on the balance sheet date, the fair value of any equity instrument investment is less than 50% (inclusive) of its initial investment cost, or less than its initial investment cost for more than 12 consecutive months (inclusive).

The aforementioned "less than its initial investment cost for more than 12 consecutive months (inclusive)" means that the monthly average of the fair value of equity instrument investment is less than that of its initial investment cost for 12 consecutive months.

⑨ Other objective evidence indicating the impairment of financial assets.

Where there is no reasonable expectation that the Company is able to recover the financial assets, it shall directly writes off the impairment provision and writes-down the book value of financial assets. The Company will write off the whole or part of the financial assets based on the actual situation.

4.9.7 Offset of financial assets and financial liabilities

When the Company has a legal right to offset the recognized financial assets and financial liabilities and the legal right is a current executable one, meanwhile the parties to the transaction plans to settle with net amount or to transfer the financial assets and the financial liabilities into cash at the same time, the financial assets and financial liabilities will be listed in the balance sheet by the net amount after offsetting.

4.9.8 Difference between financial liabilities and equity instruments and their relevant

disposal methods

Equity instruments refer to a contract that could prove the ownership of remaining equity of a certain enterprise's assets after deduction of all liabilities. If the Company is unable to avoid the unconditional delivery of cash or other financial assets to fulfill a contractual obligation, then such contractual obligation will become financial liabilities.

Where a financial instrument is a financial liability, then the relevant interest, dividends, gains, losses, as well as the gains or losses arising from redemption or refinancing, shall be included in the current profit or loss.

Where a financial instrument is an equity instrument, in case of any relevant issuance, repurchase, sale or cancellation, the issuer shall treat the said activities as changes in equity, changes in the fair value of the equity instruments shall not be recognized, and the distribution by the issuer to the holder of such equity instruments should be taken as profit distribution.

Companies that have implemented the New Standards for Financial Instruments

The Company's subsidiaries China Power International Development Limited, SPIC Pacific Energy Pty Ltd and SPIC Brazil Energia Participaçoes S.A. have implemented the New Standards for Financial Instruments as of January 1, 2018 upon the resolution of the board of directors, while the Company's subsidiaries Shanghai Electric Power Co., Ltd., State Power Investment Corporation Yuanda Environmental Protection Co., Ltd., Jilin Electric Power Co., Ltd., Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia, SPIC Dongfang New Energy Corporation, China Kangfu International Leasing Co., Ltd., SPIC Xianrong Futures Co., Ltd., and SPIC Guizhou Jinyuan Weining Energy Co., Ltd. have implemented the New Standards for Financial Instruments as of January 1, 2019 upon resolution of the board of directors. The accounting policies implemented by the above companies are as follows:

4.9.1 Classification of financial instruments

At the time of initial recognition, the Company's financial assets are classified into the following categories according to the Company's business model for managing financial assets as well as the contractual cash flow characteristics of its financial assets: financial assets measured at amortized cost, financial assets (debt instruments) measured at fair value through other comprehensive income, and financial assets measured at fair value through current profit or loss.

Financial assets whose business model is to collect contractual cash flow as the goal and the contractual cash flow is only the payment of principal and interest based on the outstanding principal amount, will be classified as financial assets measured at amortized cost; financial assets whose business model is to collect contractual cash flow and sell the financial assets both as the goal and the contractual cash flow is only the payment of principal and interest based on the outstanding principal amount, will be classified as financial assets (debt instruments) measured at fair value through other comprehensive income; other financial assets other than the abovementioned two types will be classified as financial assets measured at fair value through current profit or loss.

For investment in non-trading equity instruments, the Company will determine whether to designate it as a financial asset (equity instrument) measured at fair value through other comprehensive income at initial recognition.
During initial recognition, in order to eliminate or significantly reduce accounting mismatches, financial assets may be designated as financial assets measured at fair value through current profit or loss.

Financial liabilities, at their initial recognition, are classified into financial liabilities

measured at fair value through current profit or loss and financial liabilities measured at amortized cost.

4.9.2 Recognition basis and measurement methods of financial instruments

(1) Financial assets measured at amortized cost

Financial assets measured at amortized cost include notes receivable, accounts receivable, other receivables, long-term receivables, and creditor's right investment, etc., which are initially measured at fair value, and related transaction expenses are included in the initial recognition amount. Accounts receivable that do not contain a significant financing component and that the Company decides not to consider those with a financing component not exceeding one year are initially measured at the contract transaction price.

During the holding period, the interest calculated with the effective interest method shall be included in the current profit or loss.

Upon recovery or disposal, the difference between the purchase price obtained and the book value of such financial asset is included in current profit or loss.

(2) Financial assets (debt instruments) measured at fair value through other comprehensive income

Financial assets (debt instruments) measured at fair value through other comprehensive income include receivables financing, other creditor's right investment, etc., which are initially measured at fair value, and related transaction expenses are included in the initial recognition amount. The financial assets are subsequently measured at fair value. Changes in fair value, except for interest calculated with the effective interest method, impairment losses or gains and exchange gains and losses, shall be included in other comprehensive income.

When a financial asset is de-recognized, the accumulated gains or losses previously included in other comprehensive income shall be transferred from other comprehensive income and included in current profit or loss.

(3) Financial assets (equity instruments) measured at fair value through other comprehensive income

Financial assets (equity instruments) measured at fair value through other comprehensive income include other equity instrument investment, etc., which are initially measured at fair value, and related transaction expenses are included in the initial recognition amount. The financial assets are subsequently measured at fair value. Changes in fair value shall be included in other comprehensive income. The dividends obtained are included in the current profit or loss.

When a financial asset is de-recognized, the accumulated gains or losses previously included in other comprehensive income shall be transferred from other comprehensive income and included in retained earnings.

(4) Financial assets measured at fair value through current profit or loss

Financial assets measured at fair value through current profit or loss include financial assets held for trading, derivative financial assets, other non-current financial assets, etc., which are initially measured at fair value, and related transaction expenses are included in the current profit or loss. The financial assets are subsequently measured at fair value. Changes in fair value shall be included in current profit or loss.

(5) Financial liabilities measured at fair value through current profit or loss

Financial liabilities measured at fair value through current profit or loss include financial liabilities held for trading, derivative financial liabilities, etc., which are initially measured at fair value, and related transaction expenses are included in the current profit or loss. The financial liabilities are subsequently measured at fair value. Changes in fair value shall be included in current profit or loss.

Difference between the fair value and the consideration paid is included in investment income upon de-recognition.

(6) Financial liabilities measured at amortized cost
Financial liabilities measured at amortized cost include short-term borrowings, notes payable, accounts payable, other payables, long-term borrowings, bonds payable, and long-term payables, which are initially measured at fair value, and related transaction expenses are included in the initial recognition amount.

During the holding period, the interest calculated with the effective interest method shall be included in the current profit or loss.

Difference between the consideration paid and the fair value of such financial liabilities is included in current profit or loss upon de-recognition.

4.9.3 Recognition basis and measurement method of transfer of financial assets

Upon occurrence of transfer of a financial asset, the Company shall de-recognize the financial asset if nearly all the risks and rewards associated with the ownership of the financial asset have been transferred to the transferee; and shall not de-recognize the financial asset if nearly all the risks and rewards associated with the ownership of the financial asset are retained.

When determining whether the transfer of a financial asset meets the above de-recognition criteria of financial assets, the Company adopts the principle of substance over form. The Company classifies the transfer of a financial asset into entire transfer and partial transfer. If the entire transfer of financial asset satisfies the criteria for de-recognition, the difference between the amounts of the following two items shall be included in the current profit or loss:

(1) The book value of the transferred financial asset;

(2) The sum of the consideration received from the transfer and the accumulated amount of the changes in fair value originally and directly included in owners' equity (the situation where the financial asset transferred is an financial asset (debt instrument) measured at fair value through other comprehensive income is involved in).

If the partial transfer of financial asset satisfies the criteria for de-recognition, the entire book value of the transferred financial asset shall be split into the de-recognized and recognized part according to their respective fair value and the difference between the amounts of the following two items shall be included in the current profit or loss:

(1) The book value of the de-recognized part;

(2) The sum of the consideration received for the de-recognized part and the amount of the de-recognized part corresponding to the accumulated amount of the changes in fair value originally and directly included in owners' equity (the situation where the financial asset transferred is an financial asset (debt instrument) measured at fair value through other comprehensive income is involved in).

If the transfer of a financial asset does not meet the de-recognition criteria, the financial

asset shall continue to be recognized, and the consideration received will be recognized as a financial liability.

4.9.4 De-recognition criteria of financial liabilities

The financial liabilities shall be wholly or partly de-recognized if their present obligations are wholly or partly dissolved. Where the Company enters into an agreement with a creditor so as to substitute the existing financial liability with any new financial liability, and the new financial liability is substantially different from the existing one in terms of contractual terms, it shall de-recognize the existing financial liabilities, and shall at the same time recognize new financial liabilities.

Where substantial revisions are made to some or all of the contractual stipulations of the existing financial liability, the Company shall de-recognize the existing financial liability wholly or partly, and at the same time recognize the financial liability with revised contractual stipulations as a new financial liability.

Upon whole or partial de-recognition of financial liabilities, the difference between the book value of the financial liabilities de-recognized and the consideration paid (including non-cash assets transferred out or new financial liabilities assumed) shall be included in the current profit or loss.

Where the Company repurchases part of a financial liability, the entire book value of the financial liability shall be split into the de-recognized part and continuously-recognized part according to their respective fair value on the repurchase date. The difference between the book value of the de-recognized part and the consideration paid (including non-cash assets surrendered or new financial liabilities assumed) shall be included in the current profit or loss.

4.9.5 Determination method for the fair value of financial assets and financial liabilities

Fair value of a financial instrument having an active market is determined on the basis of quoted prices in the active market. Fair value of a financial instrument having no active market shall be determined by using valuation techniques. At the time of valuation, the Company adopts the valuation techniques that are applicable in the current situation and supported by enough available data and other information, selects the input values that are consistent with the features of assets or liabilities as considered by market participants in relevant asset or liability transactions, and gives priority to use relevant observable inputs. Unobservable input values are used only when relevant observable input values cannot be available or such values obtained are infeasible.

4.9.6 Test method and accounting treatment of impairment of financial assets

The Company considers all reasonable and evidence-based information, including forward-looking information, and estimate the expected credit losses of financial assets (debt instruments) measured at amortized cost and financial assets measured at fair value through other comprehensive income in a single or combined manner. The measurement of expected credit losses depends on whether a significant increase in credit risk has occurred in financial assets since initial recognition.

(1) General model of expected credit losses

If the credit risk of the financial instrument has increased significantly since the initial recognition, the Company measures its loss provision at the expected credit losses for the whole duration of the financial instrument; if the credit risk of the financial instrument has not significantly increased since the initial recognition, the Company measures its loss provision at the expected credit losses of the financial instrument within the next 12 months. The increase or reversal of the loss provision is included in the current profit or loss as an impairment loss or gain.

Generally, the Company believes that the credit risk of the financial instrument

has significantly increased over 30 days after the due date, unless there is solid evidence that the credit risk of the financial instrument has not increased significantly since initial recognition.

Specifically, the Company divides the process of credit impairment of financial instruments that have not been credit impaired at the time of purchase or origin into three phases. There are different accounting treatment methods for the impairment of financial instruments at different phases:

Phase I: in which credit risk has not increased significantly since initial recognition

For a financial instrument in this phase, the enterprise should measure the provision for loss according to the expected credit losses in the next 12 months, and calculate the interest income based on its book balance (that is, without deducting the provision for impairment) and the actual interest rate (if case of a financial asset, the same below).

Phase II: in which credit risk has increased significantly since initial recognition but without credit impairment

For a financial instrument in this phase, the enterprise should measure the provision for loss according to the expected credit losses of the instrument over its entire life, and calculate the interest income based on its book balance and the actual interest rate.

Phase III: in which credit impairment occurs after initial recognition

For a financial instrument in this phase, the enterprise should measure the provision for loss based on the expected credit losses of the instrument over its entire life, but the calculation of interest income is different from that of the financial assets in the previous two phases. For a financial asset that has suffered credit impairment, the enterprise should calculate interest income based on its amortized cost (book balance minus the provision for impairment, that is, the book value) and the actual interest rate.

For a financial asset that has suffered credit impairment at the time of purchase or origin, the enterprise should only recognize changes in expected credit losses throughout the lifetime after initial recognition as provision for loss, and calculate the interest income based on its amortized cost and credit-adjusted actual interest rate.

(2) For a financial instrument with lower credit risk on the balance sheet date, the Company chooses not to compare such credit risk with that at its initial recognition, but directly makes the assumption that the credit risk of the instrument has not increased significantly since initial recognition.

If the enterprise finds a financial instrument with low default risk and a borrower with strong ability to fulfill its obligation of payment for contractual cash flows in the short term, and even if there are adverse changes in the economic situation and operating environment in a longer period of time, it will not necessarily influence the borrower's such ability, then the financial instrument may be considered to have lower credit risk.

(3) Receivables and lease receivables

For receivables specified in the Accounting Standards for Business Enterprises No. 14 - Income that do not contain significant financing components (including the situation that the financing components in contracts with a term of not more than one year are not considered under the Standards), the Company will adopt the simplified model of expected credit losses and always measure their provision for loss according to the expected credit loss during the entire lifetime.

The Company makes accounting policy choices for receivables that contain significant financing components and lease receivables regulated by the Accounting Standards for Business Enterprises No. 21 - Leases, and chooses to adopt a simplified model of expected credit losses, that is, to measure their provision for loss according to the amount equivalent to the expected credit loss throughout the lifetime.

Receivables include accounts receivable, other receivables, etc. The methods of provision for bad debts are listed as follows:

1) Recognition criteria and provision method for bad debts of receivables that are individually significant.

A receivable of more than RMB 10 million shall be determined by the Company as the receivable that is individually significant. For receivables with significant single amount, according to the expected credit losses within 12 months or the entire duration, a separate credit risk assessment is made to make provision for impairment. Such receivables will no longer be included in the credit risk portfolio after a separate credit risk assessment.

2) Determination basis and provision method for bad debts of individually insignificant receivables exposed to significant risks after being included in portfolios based on their credit risk characteristics

① Determination basis for portfolios of credit risk characteristics

For receivables that are individually insignificant and receivables that are individually significant but proved to be unimpaired after separate test, they shall be classified into different portfolios according to the similarities and connection of the credit risk characteristics. These credit risks usually reflect the debtor's ability to pay all amounts due according to the contractual terms of these assets, and are related to the estimation of future cash flows of the assets checked.

Basis for determination of different portfolios:

Item	Basis for determination of portfolio
Portfolio 1: similarity in expected credit losses	Determine portfolio based on expected credit loss similarity
Portfolio 2: portfolio of related parties	Determine portfolio by using the trading object as the basis

② Provision method determined according to portfolios of credit risk characteristics

When carrying out impairment tests based on portfolios, the amounts of provision for bad debts are determined according to the portfolio structure of receivables and similar credit risk characteristics (the debtor's ability of repayment according to contractual terms) and in combination with historical loss experience and current economic conditions as well as assessment of estimated losses existed in portfolios of receivables. According to the expected credit losses within 12 months or the entire duration, a credit risk assessment is made to make provision for impairment, in consideration of forward-looking information.

Provision method for bad debts on different portfolio basis:

Item	Provision method
Portfolio 1: similarity in expected credit losses	Calculate with the expected credit loss model
Portfolio 2: portfolio of related parties	Calculate with the expected credit loss model

3) Provision method for receivables with insignificant single amount and individual provision for bad debts

The Company performs a separate impairment test on receivables with insignificant single amount that have obvious signs showing that the debtor is likely to fail to meet their repayment obligations. If there is objective evidence that they have suffered impairment, the impairment losses should be recognized and provision for bad debts should be made based on the difference between the present value of future cash flows lower than the book value.

The Company shall conduct separate impairment tests for receivables that are individually insignificant but with the following characteristics. Where there is objective evidence that an impairment has occurred, impairment losses should be recognized and provision for bad debts should be made based on the difference between the present value of future cash flows lower than the book value. Such receivables include receivables from related parties, receivables which are in dispute over the opposite party or are involved in relevant litigation or arbitration, and receivables where there is obvious indication showing that the debtor probably cannot fulfill the repayment obligation.

4.9.7 Offset of financial assets and financial liabilities

When the Company has a legal right to offset the recognized financial assets and financial liabilities and the legal right is a current executable one, meanwhile the parties to the transaction plans to settle with net amount or to transfer the financial assets and the financial liabilities into cash at the same time, the financial assets and financial liabilities will be listed in the balance sheet by the net amount after offsetting.

4.9.8 Difference between financial liabilities and equity instruments and their relevant disposal methods

Equity instruments refer to a contract that could prove the ownership of remaining equity of a certain enterprise's assets after deduction of all liabilities. If the Company is unable to avoid the unconditional delivery of cash or other financial assets to fulfill a contractual obligation, then such contractual obligation will become financial liabilities.

Where a financial instrument is a financial liability, then the relevant interest, dividends,

gains, losses, as well as the gains or losses arising from redemption or refinancing, shall be included in the current profit or loss.

Where a financial instrument is an equity instrument, in case of any relevant issuance, repurchase, sale or cancellation, the issuer shall treat the said activities as changes in equity, changes in the fair value of the equity instruments shall not be recognized, and the distribution by the issuer to the holder of such equity instruments should be taken as profit distribution.

4.10 Hedging instruments

Companies that have not yet implemented the New Standards for Financial Instruments

4.10.1 Classification of hedges

(1) A fair value hedge refers to a hedging of the risk to changes in the fair value of a recognized asset or liability or a previously unrecognized firm commitment (excluding foreign exchange risks).

(2) A cash flow hedge refers to a hedging of the risk to changes in cash flow. Such changes in cash flow are attributable to a particular risk associated with a recognized asset or liability and a highly probable forecast transaction, or a foreign exchange risk contained in a unrecognized firm commitment.

(3) A hedge of net investment in an overseas operation refers to a hedging of the foreign exchange risk arising from net investment in an overseas operation. Net investment in an overseas operation refers to the equity proportion of an enterprise in net assets in an overseas operation.

4.10.2 Designation of hedging relationship and identification of hedging effectiveness

At the commencement of the hedge, the Company formally designates the hedging relationship and prepares a formal written document about the hedging relationship, risk management objectives and the strategies of hedging. Such document specifies the nature and quality of hedging instrument, the nature and quality of hedged item, nature of hedged risks, hedging type and effective evaluation of the Company on hedging instrument. Hedging effectiveness refers to the degree of the changes in fair value or cash flow of the hedging instrument offsetting the changes in fair value or cash flow of the hedged item arising from hedged risks.

The Company continues to evaluate the hedging effectiveness, and ensures that whether the hedging meets the requirement for effectiveness by use of the hedging accounting during the accounting period designated as to the hedging relationship. If it doesn't meet the requirement, the hedging relationship will be terminated.

For the commodity hedging business, the requirements for the following hedging effectiveness shall be met:

(1) There is an economic relationship between the hedged item and the hedging instrument.

(2) For the value change caused by the economic relationship between the hedged item and the hedging instrument, the impact of credit risk is not dominant.

(3) It is required to adopt the proper hedging rate, which will not form an imbalance of relative weight between the hedging item and the hedging instrument, resulting in an accounting result that is inconsistent with the hedging accounting objective. If the hedging rate is no longer proper, but the hedge risk management objective does not change, the number of hedged items or hedging instruments should be adjusted so as to make the hedging rate meet the requirements for effectiveness again.

For the other hedging business, the requirements for the following effectiveness shall

be met simultaneously:

(1) At the commencement of hedging and in subsequent periods, the hedge is expected to be highly effective in offsetting the changes in the fair value or cash flow caused by the hedged risk during the designated periods;

(2) The hedging's actual offset results are within a range of 80% to 125%.

4.10.3 Accounting treatment of hedges

(1) Fair value hedges

Changes in fair value of the hedging derivative shall be recognized in current profit or loss. Changes in fair value of the hedged item attributable to hedged risk shall be included in the current profit or loss, and book value of the hedged item shall be adjusted simultaneously.

For fair value hedges related to financial instruments measured at the amortized cost, an adjustment made to the book value of the hedged item should be amortized during the remaining period from the adjustment date to the maturity date and should be recorded in the current profit or loss. Amortization with the effective interest method may begin immediately after the adjustment of the book value and shall not be later than the date when the hedged item terminates the adjustment to changes in fair value from hedging risks.

If the hedged item is de-recognized, the unamortized fair value will be recognized as current profit or loss.

If a hedged item is an unrecognized firm commitment, the accumulative amount of the changes in the fair value of the firm commitment incurred by the hedged risk should be recognized as an asset or liability and the relevant profit or loss shall be recorded into the current profit or loss. Changes in the fair value of hedging instruments shall also be included in current profit or loss.

(2) Cash flow hedges

The portion of profit or loss on the hedging instrument that is attributable to the effective hedging is directly recognized as other comprehensive income; while the portion that is attributable to the ineffective hedging is included in the current profit or loss.

Where the hedged transaction affects the current profit or loss, amount recognized in other comprehensive income shall be transferred into the current profit or loss when the hedged financial revenues or financial expenses are recognized or anticipated sales occur. If the hedged item is the cost of a non-financial asset or non-financial liability, then the amount previously recognized in other comprehensive income should be transferred into the initially recognized amount of the non-financial asset or the non-financial liability (or then the amount previously recognized in other comprehensive income should be transferred in the same period when the non-financial asset or the non-financial liability affects profit or loss and should be included in the current profit or loss).

If the forecast transaction or firm commitment is expected not to occur, the accumulative gain or loss of hedging instruments previously included in shareholders' equity should be transferred out and included in the current profit or loss. If the hedging instrument has matured or been sold, or the contract is terminated or has been exercised (or not replaced or renewed), or the Company revokes the designation of the hedge relationship, amounts previously recognized in other comprehensive income shall not be transferred out until the forecast transaction or definite undertaking affects the current profit or loss.

(3) Hedges of net investment in an overseas operation
A hedge of net investment in an overseas operation include the hedge of a monetary item as a part of net investment and should be treated according to the provisions similar to cash flow hedges. The portion of profit or loss on the hedging instrument attributable to the effective hedge shall be recognized as other comprehensive income, and that attributable to the ineffective hedge shall be recorded in the current profit or loss. When overseas operation is disposed, any accumulated profit or loss recognized in shareholders' equity shall be transferred out and included in current profit or loss.

Companies that have implemented the New Standards for Financial Instruments
The Company's subsidiary China Power International Development Limited has implemented the New Standards for Financial Instruments as of January 1, 2018 upon the resolution of the board of directors, while the Company's subsidiaries Shanghai Electric Power Co., Ltd., State Power Investment Corporation Yuanda Environmental Protection Co., Ltd., Jilin Electric Power Co., Ltd., Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia, SPIC Dongfang New Energy Corporation, China Kangfu International Leasing Co., Ltd., SPIC Xianrong Futures Co., Ltd., and SPIC Guizhou Jinyuan Weining Energy Co., Ltd. have implemented the New Standards for Financial Instruments as of January 1, 2019 upon resolution of the board of directors. The accounting policies implemented by the above companies are as follows:

4.10.4 Classification of hedges

(1) A fair value hedge refers to a hedging of the risk to changes in the fair value of a recognized asset or liability or a previously unrecognized firm commitment (excluding foreign exchange risks).

(2) A cash flow hedge refers to a hedging of the risk to changes in cash flow. Such changes in cash flow are attributable to a particular risk associated with a recognized asset or liability and a highly probable forecast transaction, or a foreign exchange risk contained in a unrecognized firm commitment.

(3) A hedge of net investment in an overseas operation refers to a hedging of the foreign exchange risk arising from net investment in an overseas operation. Net investment in an overseas operation refers to the equity proportion of an enterprise in net assets in an overseas operation.

4.10.5 Designation of hedging relationship and identification of hedging effectiveness

At the commencement of the hedge, the Company formally designates the hedging relationship and prepares a formal written document about the hedging relationship, risk management objectives and the strategies of hedging. Such document specifies the nature and quality of hedging instrument, the nature and quality of hedged item, nature of hedged risks, hedging type and effective evaluation of the Company on hedging instrument. Hedging effectiveness refers to the degree of the changes in fair value or cash flow of the hedging instrument offsetting the changes in fair value or cash flow of the hedged item arising from hedged risks.

The Company continues to evaluate the hedging effectiveness, and ensures that whether the hedging meets the requirement for effectiveness by use of the hedging accounting during the accounting period designated as to the hedging relationship. If it doesn't meet the requirement, the hedging relationship will be terminated.

The use of hedging accounting should meet the following requirements for hedging effectiveness:

(1) There is an economic relationship between the hedged item and the hedging instrument.

(2) For the value change caused by the economic relationship between the hedged item and the hedging instrument, the impact of credit risk is not dominant.

(3) It is required to adopt the proper hedging rate, which will not form an imbalance of relative weight between the hedging item and the hedging instrument, resulting in an accounting result that is inconsistent with the hedging accounting objective. If the hedging rate is no longer proper, but the hedge risk management objective does not change, the number of hedged items or hedging instruments should be adjusted so as to make the hedging rate meet the requirements for effectiveness again.

4.10.6 Accounting treatment of hedges

(1) Fair value hedges

Changes in fair value of the hedging derivative shall be recognized in current profit or loss. Changes in fair value of the hedged item attributable to hedged risk shall be included in the current profit or loss, and book value of the hedged item shall be adjusted simultaneously.

For fair value hedges related to financial instruments measured at the amortized cost, an adjustment made to the book value of the hedged item should be amortized during the remaining period from the adjustment date to the maturity date and should be recorded in the current profit or loss. Amortization with the effective interest method may begin immediately after the adjustment of the book value and shall not be later than the date when the hedged item terminates the adjustment to changes in fair value from hedging risks.

If the hedged item is de-recognized, the unamortized fair value will be recognized as current profit or loss.

If a hedged item is an unrecognized firm commitment, the accumulative amount of the changes in the fair value of the firm commitment incurred by the hedged risk should be recognized as an asset or liability and the relevant profit or loss shall be recorded into the current profit or loss. Changes in the fair value of hedging instruments shall also be included in current profit or loss.

(2) Cash flow hedges

The portion of profit or loss on the hedging instrument that is attributable to the effective hedging is directly recognized as other comprehensive income; while the portion that is attributable to the ineffective hedging is included in the current profit or loss.

Where the hedged transaction affects the current profit or loss, amount recognized in other comprehensive income shall be transferred into the current profit or loss when the hedged financial revenues or financial expenses are recognized or anticipated sales occur. If the hedged item is the cost of a non-financial asset or non-financial liability, then the amount previously recognized in other comprehensive income should be transferred into the initially recognized amount of the non-financial asset or the non-financial liability (or then the amount previously recognized in other comprehensive income should be transferred in the same period when the non-financial asset or the non-financial liability affects profit or loss and should be included in the current profit or loss).

If the forecast transaction or firm commitment is expected not to occur, the accumulative gain or loss of hedging instruments previously included in shareholders' equity should be transferred out and included in the current profit or loss. If the hedging instrument has matured or been sold, or the contract is terminated or has been exercised (or not replaced or renewed), or the Company revokes the designation of the hedge relationship, amounts previously recognized in other comprehensive income shall not be transferred out until the forecast transaction or definite undertaking affects the current profit or loss.

(3) Hedges of net investment in an overseas operation
A hedge of net investment in an overseas operation include the hedge of a monetary item as a part of net investment and should be treated according to the provisions similar to cash flow hedges. The portion of profit or loss on the hedging instrument attributable to the effective hedge shall be recognized as other comprehensive income, and that attributable to the ineffective hedge shall be recorded in the current profit or loss. When overseas operation is disposed, any accumulated profit or loss recognized in shareholders' equity shall be transferred out and included in current profit or loss.

4.11 Receivables

The Company's receivables include accounts receivable, other receivables and others. The accounts receivable generated from external sales of goods or rendering of services by the Company are initially recognized at the fair value of the consideration which shall be received by the purchaser under the contract or agreement. Receivables are presented, by using the effective interest method, at the net amount of the amortized costs less the provision for bad debts.

Companies that have not yet implemented the New Standards for Financial Instruments

4.11.1 Separate impairment test for receivables with significant single amount

The Company regards receivables with an ending balance of more than RMB 10 million (inclusive) or receivables with a single amount of more than 10% (inclusive) of the balance of receivables as receivables with a significant single amount.

The Company would carry out separate impairment test on receivables with significant single amount; the financial assets not impaired in separate test will be include in financial assets portfolio with similar credit risk characteristics before impairment test. Receivables whose impairment losses have been recognized in a separate test shall not be included in the receivables portfolio with similar credit risk characteristics for an impairment test.

4.11.2 Receivables with provision for bad debts accrued on a portfolio basis

Basis for determination of portfolio	
Aging analysis portfolio	The Company shall determine the proportion of provision for bad debts based on the actual loss ratio of the same or similar receivables portfolio, or the same or similar aging-based receivables portfolio with similar credit risk characteristics in the previous years in consideration with the current situation
Risk-free portfolio	It may be reasonably predicted that future cash flow will not be lower than book value
Methods for provision for bad debts accrued on a portfolio basis (aging analysis method, balance percentage method and other methods)	
Aging analysis portfolio	Aging analysis method
Risk-free portfolio	No provision for bad debts

Provision for bad debts under the aging analysis method in the portfolio:

(1) Accounts receivable from power generation enterprises

Aging	Proportion of provision (%)
Within 1 year	0.00
1 - 2 years (inclusive)	10.00
2 - 3 years (inclusive)	20.00
3 - 5 years (inclusive)	50.00
Over 5 years	100.00

The primary businesses of various fuel companies, operating companies, engineering companies, and electric power complete sets companies of the Group Company are closely related to the power generation companies of the Group Company, and their proportion of provision for bad debts of accounts receivable and notes receivable is the same as that of power generation companies.

(2) Accounts receivable from coal enterprises

Aging	Proportion of provision (%)
Within 1 year	2.00
1 - 2 years (inclusive)	4.00
2 - 3 years (inclusive)	8.00
Over 3 years	100.00

(3) Other receivables

Aging	Proportion of provision (%)
Within 1 year	10.00
1 - 2 years (inclusive)	30.00
2 - 3 years (inclusive)	50.00
3 - 5 years (inclusive)	80.00
Over 5 years	100.00

Except for power generation and related enterprises and coal enterprises, the proportion of provision for accounts receivable of other enterprises shall be the same as that for other receivables. No provision for bad debts will be made for futures deposits included in other receivables.

(4) No provision for bad debts will be made for notes receivable that are not overdue. Overdue notes receivable should be transferred to accounts receivable, with aging being calculated accumulatively, and the provision for bad debts should be made according to the aforementioned provisions.

(5) The proportion of provision for bad debts for overdue advances to suppliers based on overdue ageing is as follows:

Aging	Proportion of provision (%)
Within 1 year (inclusive) past due	20.00
1 - 2 years (inclusive) past due	50.00
2 - 3 years (inclusive) past due	80.00
Over 3 years past due	100.00

4.11.3 Receivables with insignificant single amount and individual provision for bad debts

Reasons for provision for bad debts accrued on a single basis

The Company shall conduct separate impairment tests for receivables that are individually insignificant but with the following characteristics. Where there is objective evidence that an impairment has occurred, impairment losses should be recognized and provision for bad debts should be made based on the difference between the present value of future cash flows lower than the book value. Such receivables include receivables from related parties, receivables which are in dispute over the opposite party or are involved in relevant litigation or arbitration, and receivables where there is obvious indication showing that the debtor probably cannot fulfill the repayment obligation.

Method for provision for bad debts

Where the Company transfers accounts receivable to financial institutions without attaching any right of recourse, the difference of the transaction cost less the book value of accounts receivable written down and relevant taxes and surcharges, is included in the current profit or loss.

4.11.4 Recognition criteria for losses on bad debt of receivables

Under any of the following circumstance, the receivables are recognized as bad debts according to stipulated procedures to write off the provision for bad debts.

I. Where the creditor is declared bankruptcy or repealed by laws and the Company has obtained the files testifying its announcement of bankruptcy, cancellation of registration in industry and commerce departments or revocation of license or the documents issued by the government departments to order its close and other relevant information, the losses on bad debts shall be recognized when the accounts are still cannot be recovered after deducting the part of creditor's property used for liquidation;

II. Where the debtor is died or the declared missing or dead by laws, leaving insufficient property or legacy for liquidation and no successor to pay off, the uncollectible receivables arising therefrom shall be recognized as losses from bad debts;

III. When the uncollectible receivables are involved in litigation, effective verdict issued by the people's court, defeat determined or ruled by ruling, or the prevailing party with a verdict of an execution cease or due to the court’s failure of execution, they shall be recognized as bad debt loss;

IV. Where the receivables are overdue by 3 years, registered in enterprise account collection record and ascertained of no involvement in any business within three years, the losses from bad debts shall be recognized after deducting all the accounts due to the debtor and the amount compensated to relevant reliability person(s);

V. Accounts receivable which are overdue for 3 years and uncollectible despite the collection conducted pursuant to law as the debtor is in overseas area, or in

Hong Kong, Macao, Taiwan, with whom no business transaction is made within 3 years, shall be recognized as bad debt loss after the submissions concerning the collection termination issued by overseas intermediary or the certificate concerning the escape of debtor and certificate proving bankruptcy issued by embassy or consulate of China in foreign countries are acquired; debts are uncollectible after settlement by bankrupt property or heritage in case of the bankruptcy or death of the debtor. The debts still cannot be recovered with the debtor's properties or heritage after the debtor is bankruptcy or dies;

VI. The debtor has not paid off its matured debts for a long time, and there is sufficient evidence that the account cannot be recovered or the possibility of recovery is very small.

Companies that have implemented the New Standards for Financial Instruments
See "Note 4.9 Financial Instruments - Test method and accounting treatment of impairment of financial assets of companies that have implemented the New Standards for Financial Instruments" for details.

4.12 Inventories

4.12.1 Classification of inventories

Inventories of the Company mainly include fuels, raw materials, low-cost consumables, stock commodities, goods in process and engineering construction (unsettled payment of a finished project), etc.

4.12.2 Evaluation methods of acquisition and dispatching inventories, inventory system and amortization of inventories

Inventories are measured at actual costs when acquired. Raw materials, goods in process, stock commodities, etc. should be measured with weighted average method when being dispatched; low-cost consumables are amortized with one-off amortization method when they are fetched for use; packaging materials for revolving purpose should be included in costs by several times according to expected number of use. The perpetual inventory system is adopted for accounting.

A construction contract is measured at the actual cost, including direct expenses and indirect expenses incurred from the signing of the contract to the completion of the contract and those related to the execution of the contract. Where travel expenses, bidding expenses and others expenses are incurred from the conclusion of the contract and can be separately distinguished and reliably measured and the contract is probably concluded, such expenses should be included in the contract cost when the contract is received; if the above conditions fail to be met, such expenses should be included in the current profit or loss.

4.12.3 Recognition criteria and provision method for inventory depreciation reserves

After the comprehensive inventory count at the end of the period, provisions for inventory depreciation reserve are made or adjusted at the lower of their costs or net realizable values. Where the inventory costs are higher than the net realizable values as at the end of the period, the provision for inventory depreciation reserves shall be made and such provisions shall be included in the current profit or loss.

The provisions for inventory depreciation reserve are made on an individual basis at the end of the period, for inventories with large quantities and relatively low unit prices, the provisions for inventory depreciation reserve are made on a category basis. For inventories related to the product portfolios manufactured and sold in the same area, and of which the final usage or purpose is identical or similar thereto, and which is difficult to be separated from other items for measurement purposes, the provisions for inventory depreciation reserve are made on a portfolio basis.

If the previous factor rendering write-downs of the inventories has been eliminated, the

amounts written down are recovered and reversed from the inventory depreciation reserves, which have been provided for. The reversed amounts are included into the current profit or loss.

4.12.4 Recognition method for net realizable values of inventories

The net realizable values of inventories refer to the amounts of the estimated selling prices of inventories minus the estimated costs to completion, estimated selling expenses and relevant taxes and surcharges.

In normal operation process, for merchandise inventories held directly for sale, including finished goods, stock commodities and materials for sale, their net realizable values are determined at the estimated selling prices minus the estimated selling expenses and relevant taxes and surcharges; in normal operation process, for material inventories that need further processing, their net realizable values are determined at the estimated selling prices of finished goods minus estimated costs to completion, estimated selling expenses and relevant taxes and surcharges; for inventories held to execute sales contract or service contract, their net realizable values are calculated on the basis of contract price. If the quantities of inventories specified in sales contracts are less than the quantities held by the Company, the net realizable value of the excess portion of inventories shall be based on general selling prices.

Unless there is clear evidence shows that the abnormalities lies in the market price at the balance sheet date, the net realizable value of the inventory items is determined based on market prices at the balance sheet date.

As at the end of the current period, the net realizable value of the inventory items is determined based on market prices at the balance sheet date.

4.13 Contractual assets and contractual liabilities

Companies that have implemented the New Standards for Revenues

The Company's subsidiary China Power International Development Limited has implemented the New Standards for Revenues as of January 1, 2018 upon the resolution of the board of directors. The accounting policies implemented by the above company are as follows:

4.13.1 Recognition method and criteria of contractual assets and contractual liabilities

The Company presents contractual assets or contractual liabilities in the balance sheet based on the relationship between its performance of fulfillment obligations and customer payments. The Company's right to receive consideration for transfer of goods or provision of services to customers (and the right depends on other factors than the passage of time) is listed as contractual assets, while the Company's obligation for transfer of goods or provision of services to customers due to consideration received or receivable from the customers is listed as contractual liabilities. Contractual assets and contractual liabilities under the same contract are presented by their net amounts.

4.13.2 Determination method and accounting treatment of expected credit losses of contractual assets

See the accounting treatment of accounts receivable in "Note 4.9 Financial Instruments - Companies that have implemented the New Standards for Financial Instrument" for the determination method and accounting treatment of the expected credit losses of contractual assets.

4.14 Long-term equity investments

4.14.1 Judgment criteria for common control and significant influence

Common control refers to the control shared over an arrangement in accordance with the relevant stipulations, and the decision-making of related activities of the arrangement should not be made before the party sharing the control right agrees the same. Where the Company exercises common control over the investee together with other parties to the joint venture and enjoys the right on the investee's net assets, the investee is a joint venture of the Company.

Significant influence refers to the power of participating in decision-making of a company's financial and operational policies, to the extent that the preparation of the said policies cannot be controlled or under the common control with other parties. Where the Company is able to exert significant influence over the investee, the investee is its associate.

4.14.2 Determination of initial investment costs

(1) Long-term equity investments acquired through business combination

Business combination under the same control: If the Company makes payment in cash, transfers non-cash assets or bears debts and issues equity securities as the consideration for the business combination, the share of owners' equity of the acquiree obtained on the combination date in the book value of the ultimate controller's consolidated financial statement is recognized as the initial cost of the long-term equity investment. Where additional investment, or other reasons make the control over the investee under the same control possible, the initial investment cost of the long-term equity investments is measured at the share of net assets of the acquiree on the combination date in the book value of the ultimate controller's consolidated financial statements. The stock premium is adjusted according to the difference between the initial cost of long-term equity investments on the combination date and the sum of the book value of long-term equity investments before combination and the book value of the consideration further paid for obtaining shares; if there is no sufficient share premium for write-downs, the retained earnings are offset.

Business combination not under the same control: The Company recognizes the combination cost determined on the combination date as the initial investment cost of long-term equity investments. Where additional investment or other reasons make the control over the investee not under the same control possible, the initial investment cost under the cost method will be the sum of the book value of the equity investments previously held and the newly increased investment costs.

(2) Long-term equity investments obtained by other means

For long-term equity investments acquired from cash payment, the initial investment cost is the actually paid purchasing cost.

For the long-term equity investment acquired by issuing equity securities, the initial investment cost is the fair value of the issued equity securities.

If the exchange of non-monetary assets has commercial substance, and the fair values of assets traded out and traded in can be measured reliably, the initial cost of long-term equity investment traded in with non-monetary assets are determined based on the fair values of the assets traded out unless there is any conclusive evidence showing that the fair values of the assets traded in are more reliable. If the exchange of non-monetary assets does not meet the above criteria, the book value of the assets traded out and relevant taxes and surcharges payable are recognized as the initial cost of long-term equity investment traded in.

The book-entry value of the long-term equity investment obtained through debt restructuring shall be determined based on the fair value of the abandoned creditor's rights and other costs such as taxes directly attributable to the asset, and the difference between the fair value of the abandoned creditor's rights and its book value will be included in the current profit or loss.

4.14.3 Subsequent measurements and recognition of profit or loss

(1) Long-term equity investments accounted for under cost method

Long-term equity investments of the Company in subsidiaries are calculated under the cost method. Except for the price actually paid upon acquisition or the cash dividends or profit included in the price that are declared but not yet paid, the Company recognizes investment income for the current period at the share of the cash dividends or profits declared and released by the investee.

(2) Long-term equity investments calculated under the equity method

The Company's long-term equity investments in its associates and joint ventures are calculated under the equity method. If the cost of initial investment is in excess of the proportion of the fair value of the net identifiable assets in the investee when the investment is made, the difference will not be adjusted to the initial cost of long-term equity investment; if the cost of initial investment is in short of the proportion of the fair value of the net identifiable assets in the investee when the investment is made, the difference will be included in the current profit or loss.

The Company should recognize the investment income and other comprehensive income respectively in accordance with its share of net profit or loss and other comprehensive income realized by the investees that it should enjoy or share, and adjust the book value of long-term equity investments; calculate the part it shall have based on the distributable profits or cash dividends declared by the investees, and reduce accordingly the book value of long-term equity investments; for changes in owners' equity of the investees other than those in net gains and losses, other comprehensive income and profit distribution, the book value of long-term equity investments shall be adjusted and included in the owners' equity.

When recognizing the attributable share of net profit or loss of the investee, the Company shall, based on the fair value of identifiable net asset of the investee when it obtains the investment, recognize its attributable share of the net profit or loss of the investee after the adjustment according to the Company's accounting policy and accounting period. When holding the investment, the investee should prepare the consolidated financial statements, it shall account for the investment income based on the net profit, other comprehensive income and the changes in other owner's equity attributable to the investee.

The Company calculates its attributable profit or loss of internal transactions that are not realized arising among itself, associates and joint ventures based on its attributable percentage and offset it, and determines the investment income on that basis. Unrealized internal transaction loss incurred between the Company and the investee shall be recognized in full amount if such loss belongs to the asset impairment. For transactions on investments or sales of assets between the Company and associates and joint ventures, where such assets constitute business, they should be accounted for according to the relevant policies disclosed in Notes "4.4 Accounting treatment of business combinations under common control and not under common control" and "4.5 Preparation methods of consolidated financial statements".

When the Company confirms that it should share losses of the investee, treatment shall be done in following sequence: Firstly, writing down the book value of long-term equity investments. Secondly, if the book value of the long-term equity investments is insufficient to be offset, the Company shall continue to recognize the investment loss to the extent of the book value of long-term interests which substantially form the net investment in the investee and offset the book value of the long-term receivable items and other items. Finally, after all the above treatments, if the Company is still responsible for any additional liability in accordance with the provisions stipulated in the investment contracts or agreements, provisions are recognized and included into current investment loss according to the obligations estimated to undertake.

When the investee realizes a net profit or net increase in other comprehensive income in the following periods, the Company should conduct the accounting treatment in the reverse order of the previous recognition or registration of net losses from relevant investments, that is, the first to write down the unrecognized net investment loss and the book value of recovered other long-term equity and the long-term equity investment are written down, and the second to review the book value of the estimated liabilities, and the third to make adjustments according to the best estimate after review.

(3) Disposal of long-term equity investments

For disposal of long-term equity investment, the difference between its book value and the actual price for acquisition shall be included in current profit or loss.

Upon the disposal of the long-term equity investments accounted for by using the equity method, the part that was originally included in other comprehensive income will be subject to accounting treatment at corresponding ratio on the basis the same as that for direct disposal of related assets and liabilities with the investee. Owner's equity recognized at the changes in the investee's other owner's equity other than net profit or loss, other comprehensive income and profit distribution shall be transferred to the current profit or loss according to the proportion, except for other comprehensive income from changes arising from re-measurement of net liabilities or net assets of defined benefit plan.

In case the joint control or significant influence over the investee is lost for disposing part of equity investments or other reasons, the remaining equity will be changed to be accounted for according to the recognition and measurement principles of financial instruments, while the difference between the fair value and the book value on the date of the loss of joint control or significant influence should be included in the current profit or loss. As to other comprehensive income recognized based on measurement of the original equity investment under the equity method, accounting treatment shall be made on the same basis as would be required if the investee had directly disposed of the assets or liabilities related thereto when measurement under the equity method is terminated. Owner's equity recognized from the investee's changes in other owner's equity other than net profit or loss, other comprehensive income and profit distribution should all transferred to the current profit or loss when the equity method is no longer adopted.

Where the Company losses control over the investee due to its disposal of part of equity investment, the decline in its proportion of shareholding caused by the increase of investment in subsidiaries by other investors or other reasons, if it can exercise joint control over or significant influence on the investee through the remaining equities, the remaining equities shall be measured by changing to employ the equity method and adjusted as if the remaining equities had been measured by employing the equity method ever since acquired in preparation of separate financial statements; if the Company cannot exercise joint control over or a significant influence on the investee through the remaining equities, the accounting treatment shall be changed to be made in accordance with relevant provisions on recognition and measurement of financial instruments, and the balance between the fair value and book value thereof on the date of loss of control shall be recorded in current profit or loss.

In case the equity disposed of is acquired through business combination due to additional investment or other reasons, in the preparation of individual financial statements, if the remaining equity after the disposal is accounted for in the cost method or the equity method, other comprehensive income and other owners' equity recognized from the equity investments held before the date of acquisition in the equity method shall be carried over in proportion; if the remaining equity after the disposal is subject to accounting treatment according to the recognition and measurement criteria for financial instruments, all the other comprehensive income and other owners' equity shall be carried over.

4.14.4 Recognition criteria and provision method for impairment of long-term equity investments

The Company assesses whether there is any indication that long-term equity investment may be impaired at the end of each period.

For a sign of impairment of the long-term equity investment, where the book value of the long-term equity investment is greater than the share of book value of the owners' equity of the investee, the Company should conduct an impairment test on the long-term equity investment and estimate recoverable amount.

Provision for impairment is made at the difference between the recoverable amount less than the book value of long-term equity investment, and should not be reversed in subsequent accounting periods once recognized.

4.15 Investment properties

The investment properties refer to the real estate held for earning rentals or/and capital appreciation. The investment properties of the Company include leased land use right, land use right held for transfer upon appreciation, and leased building (including self-built buildings or buildings developed for renting or buildings under construction or development for future renting).

The Company's investment properties are initially measured at the cost at the time of their acquisition, and is subsequently measured under the fair value mode on the balance sheet date. No depreciation or amortization is made by the Company for the investment properties, whose book value is adjusted based on the fair value of the investment properties on the balance sheet date, and the difference between the fair value and the original book value thereof is included in the current profit or loss.

4.16 Fixed assets

4.16.1 Recognition criteria of fixed assets

Fixed assets are tangible assets that are held for use in the production of goods or supply of services, for rental to others, or for administrative purposes and have useful life of more than one accounting year.

The fixed assets shall be only recognized when the following conditions are satisfied: the economic benefits relating to the fixed assets may flow into the Company, and the costs of the fixed assets can be measured reliably.

The Company initially measures its fixed assets based on their actual costs when acquired.

4.16.2 Classification and depreciation methods of fixed assets

Depreciation method for the Company's fixed assets generally adopts the straight-line method. The depreciation rates are determined according to the categories, estimated useful lives and estimated net residual rates of fixed assets. The units-of-production method is adopted for the open-pit coal mines and roadways buildings. The mining roadway funds are provided as the depreciation of mine pit assets as required according to the raw coal production.

Where various components of fixed assets are different in useful lives or bring economic benefits for the enterprise in different ways, then the Company should choose different depreciation rates or methods to separately provide for depreciation. Specifically, for fixed assets of which provision for impairment has been made, the depreciation rate shall be determined based on the fixed assets deducting the accumulated amount of provision for impairment withdrawn.

The Company should review useful lives, estimated net residual rate and depreciation methods of the fixed assets at the end of each year. For any differences between the estimated useful life and the previous estimates, the useful life of the fixed assets shall be adjusted; for any differences between the estimated net residuals and the previous estimates, the estimated net residual shall be adjusted.

For fixed assets acquired under financing leases, if there is reasonable assurance that the lease will obtain the ownership of the leased assets when the lease term expires, the leased assets should be depreciated over its useful life; if there is no reasonable assurance that the lease will obtain the ownership of the leased assets when the lease term expires, the leased assets should be depreciated over the shorter of the lease term or useful life of the leased assets.

China Power International Development Limited, a subsidiary of the Company, has implemented the new lease standards from January 1, 2019 by the resolution of the board of directors. From January 1, 2019, the depreciation will be accrued according to the relevant provisions on the right-of-use asset in the new lease standards. Please see the accounting treatment of the right-of-use asset in the Note "4.32 Leases - Companies that have implemented the new lease standards".

The provision for depreciation should be made when the fixed assets have reached the working condition for their intended use and ceased at the time of derecognition or the fixed assets are classified as non-current assets held for sale.

Depreciation lives and annual depreciation rates of different fixed assets are listed as follows:

Category	Depreciation life	Residual	Annual depreciation

	(years)	value rate (%)	rate (%)
Buildings and constructions	8-55 years	0-10	1.64-12.50
Machinery and equipment	6-30 years	0-10	3.00-16.67
Means of transportation	6-10 years	3-10	9.00-16.17
Electronic equipment	5 years	0-10	18.00-20.00
Fixed assets acquired under financial lease (subject to the old leasing standards)			
Buildings and constructions	8-55 years	0-10	1.64-12.50
Machinery and equipment	6-30 years	0-10	3.00-16.67
Means of transportation	6-10 years	3-10	9.00-16.17
Electronic equipment	5 years	0-10	18.00-20.00
Fixed assets leased out through operating (subject to the new leasing standards)			
Buildings and constructions	8-55 years	0-10	1.64-12.50
Machinery and equipment	6-30 years	0-10	3.00-16.67
Means of transportation	6-10 years	3-10	9.00-16.17
Electronic equipment	5 years	0-10	18.00-20.00
Other equipment			

4.16.3 Accounting treatment of subsequent expenses of fixed assets

Subsequent expenses of fixed assets refer to expenses from updating and improvement, repair costs of fixed assets during use.

For the subsequent renovation and transformation expenses of fixed assets meeting the Company's recognition criteria of fixed assets, they shall be included in costs of fixed assets after deducting the book value of replaced part; for repair expenses of fixed assets not meeting such recognition criteria, they shall be recorded into current profit or loss when incurred.

4.16.4 Recognition criteria and provision method for provision for impairment of fixed assets

The Company assesses whether there is any indication that fixed assets may be impaired at the end of each period.

If there is any indication that the fixed assets may be impaired, the Company estimates its recoverable amount. The recoverable amounts of fixed assets are the higher of their fair values less costs to sell and the present values of the future cash flows expected to be derived from the fixed assets.

If the recoverable amounts of fixed assets are lower than their book values, the book values of the assets shall be written down to their recoverable amounts. The write-downs are recognized as impairment losses and charged to profit or loss for the current period. Provisions for impairment loss on the fixed assets are made accordingly. After the impairment loss of the fixed asset is recognized, the depreciation for impairment of fixed assets will be adjusted in future periods to allow that the adjusted book value (less net estimated residual value) of the fixed assets is systematically amortized over their remaining useful life.

Impairment losses of fixed assets shall not be reversed in subsequent accounting

periods once recognized.

If any indication suggests that a fixed asset may be impaired, the Company estimates the recoverable amount of the individual asset. If it is difficult to estimate the recoverable amount of the individual asset, the Company estimates the recoverable amount of the asset group that the individual asset belongs to.

4.16.5 Recognition basis and measurement of fixed assets acquired under financial lease

The fixed assets acquired under financing lease are recognized if one of the following conditions is specified by the Company and the leaser in their lease agreement:

(1) Upon the expiration of the lease term, the ownership of the leased asset has been transferred to the Company;

(2) The Company has the option to purchase the asset and the purchase price is far lower than the asset's fair value at the time of the option being exercised;

(3) The lease term covers the most of the useful life of the leased asset;

(4) There is no large difference between the present value of the minimum lease payments on the lease commencement date and the fair value of the asset.

On the lease commencement date, the book entry value of a fixed asset acquired under financing lease is measured at the asset's fair value or the present value of the minimum lease payment, whichever is the lower. The minimum lease payment is recorded as the book entry value of the long-term payables, and the difference between them is deemed as the unrecognized financing expenses.

China Power International Development Limited, a subsidiary of the Company, has implemented the new lease standards from January 1, 2019 by the resolution of the board of directors. From January 1, 2019, the recognition and measurement will be conducted according to the relevant provisions on the right-of-use asset in the new lease standards. Please see the accounting treatment of the right-of-use asset in the Note "4.32 Leases - Companies that have implemented the new lease standards".

4.17 Construction in progress

4.17.1 Initial measurement of construction in progress and criteria for construction in progress conversion into fixed assets

The Company's costs of construction in progress are determined according to actual project expenditures, including all necessary project expenses incurred during the construction period, the borrowing costs that shall be capitalized before the construction reaches its condition for the intended use and other related expenses.

Constructions in progress are transferred to fixed assets when they reach the condition for its intended use.

The initial book values of the fixed assets are stated at total expenditures incurred before construction in progress reaching the working condition for their intended use. For construction in progress that has reached working condition for intended use but for which the completion of settlement has not been handled, it shall be transferred into fixed assets at the estimated value according to the project budget, construction price or actual cost, etc. as of the date when it reaches the working condition for intended use, and the fixed assets shall be depreciated in accordance with the Company's policy for fixed assets depreciation; adjustment shall be made to the estimated value based on the actual cost after the completion of settlement is handled, but depreciation already provided for will not be adjusted.

4.17.2 Recognition criteria and provision method of provision for impairment of

construction in progress

The Company assesses whether there is any indication that construction in progress may be impaired at the end of each period.

If there is any indication that construction in process may be impaired, the Company estimates its recoverable amounts. If there is any indication that construction in progress may be impaired, the Company shall estimate the recoverable amount on the basis of single construction. If it is difficult to estimate the recoverable amount of single construction, the Company shall determine the recoverable amount of the assets group that such construction belongs to.

The recoverable amounts of construction in progress are the higher one between the net amount of fair values less the disposal fees and the present values of the estimated future cash flows of the construction in progress.

If the recoverable amounts of construction in progress are lower than their book values, the book values of the construction in progress are written down to their recoverable amounts. The write-downs are recognized as impairment losses of the construction in progress and included in the current profit or loss. Provisions for impairment of the construction in progress are made accordingly.

Once recognized, the impairment loss of construction in progress will not be reversed in subsequent accounting period.

4.18 Borrowing costs

4.18.1 Recognition criteria of capitalization of borrowing costs

Borrowing costs include the interest of borrowings, the amortization of discount or premium, auxiliary expenses, exchange differences incurred by foreign currency borrowings, etc.

Borrowing costs of the Company that are directly attributable to the acquisition, construction or production of qualifying assets should be capitalized and included in the costs of related assets. Other borrowing costs are recognized as expenses at the amount on occurrence and are charged to the current profit or loss.

Assets eligible for capitalization refer to fixed assets, investment property, inventories and other assets which may reach their intended use or sale status only after long-time acquisition and construction or production activities.

Borrowing costs may be capitalized only when all the following conditions are met at the same time:

(1) Asset disbursements, which include those incurred by cash payment, the transfer of non-cash assets or the undertaking of interest-bearing debts for acquiring and constructing or producing assets eligible for capitalization, have already been incurred;

(2) Borrowing costs have already been incurred;

(3) The acquisition and construction or production activities which are necessary to prepare the assets for their intended use or sale have been in progress.

4.18.2 Capitalization period for borrowing costs

Capitalization period refers to the period from the commencement of capitalization of borrowing costs to its cessation, excluding the period of capitalization suspension of borrowing costs.

Capitalization of borrowing costs should be ceased when the acquired and constructed or produced assets eligible for capitalization have reached their intended use or sale condition.

When some projects among the acquired and constructed or produced assets eligible for capitalization are completed and can be used separately, the capitalization of borrowing costs of such assets should be ceased.

When some projects among the acquired and constructed or produced assets eligible for capitalization are completed and can be used separately, the capitalization of borrowing costs of such projects should be ceased.

4.18.3 Period of capitalization suspension of borrowing costs

If the acquisition, construction or production activities of assets eligible for capitalization are abnormally interrupted and such condition lasts for more than three months, the capitalization of borrowing costs should be suspended; if the interruption is necessary procedures for the acquired, constructed or produced assets eligible for capitalization to reach the working conditions for their intended use or sale, the borrowing costs continue to be capitalized. Borrowing costs incurred during the interruption are recognized as the current profit or loss and continue to be capitalized until the acquisition, construction or production of the assets restarts.

4.18.4 Calculation method of capitalization amount of borrowing costs

As for special borrowings borrowed for acquiring and constructing or producing assets eligible for capitalization, borrowing costs of special borrowings actually incurred in the current period less the interest income from undrawn borrowings deposited in the bank or investment income from temporary investment should be recognized as the capitalization amount of borrowing costs.

As for general borrowings used for acquiring and constructing or producing assets eligible for capitalization, the interest of general borrowings to be capitalized should be calculated by multiplying the average of the weighted average of asset disbursements of the part of accumulated asset disbursements exceeding special borrowings at end of each month by the capitalization rate of used general borrowings. The capitalization rate is calculated by weighted average interest rate of general borrowings.

Where there are discounts or premiums on borrowings, amounts of discounts or premiums shall be amortized in each accounting period at the effective interest method, and the amount of interest for each accounting period should be adjusted.

4.19 Intangible assets

4.19.1 Recognition of intangible assets

The "intangible assets" refers to the identifiable non-monetary assets which have no physical shape and are possessed or controlled by the Company. Intangible assets will only be recognized when all the following criteria are satisfied:

(1) It is probable that the economic benefits relating to the intangible assets may flow into the Company;

(2) The costs of the fixed assets can be measured reliably.

4.19.2 Valuation method of intangible assets

(1) The Company initially measures intangible assets at cost on acquisition.
The costs of externally purchased intangible assets include purchase prices, relevant taxes and surcharges and other directly attributable expenditures incurred to prepare the assets for their intended uses. If the payment for an intangible asset is delayed beyond the normal credit conditions and it is of the financing nature, the cost of the intangible asset shall be determined on the basis of the present value of the purchase price.

The book value of the intangible assets obtained from the debtor through debt restructuring for the purpose of debt repayment shall be determined based on the fair value of the abandoned creditor's rights and other costs such as taxes directly attributable to the asset to achieve the intended use, and the difference between the fair value of the abandoned creditor's rights and their book value will be included in the current profit or loss.

On the premise that non-monetary assets trade is of commercial nature and the fair value of the assets traded in and out can be measured reliably, the book-entry values of intangible assets traded in with non-monetary assets should be recognized at the fair value of the assets traded out, unless any unambiguous evidence indicates that the fair values of the assets traded in are more reliable; as to the non-monetary assets trade not meeting the aforesaid premise, the book value of the assets traded out and related taxes and surcharges payable should be recognized as the cost of the intangible assets traded in, and no profit or loss will be recognized.

(2) Subsequent measurement of intangible assets
The useful lives of the intangible assets are analyzed and determined on acquisition.

As for the intangible assets with limited useful life, straight-line amortization method is adopted in the period when the intangible assets generate economic benefit for enterprise; if the period when the intangible assets generate economic benefit for enterprise cannot be forecasted, the intangible assets should be deemed as those with indefinite useful life and should not be amortized.

4.19.3 Provision for impairment of intangible assets

For the intangible assets with definite useful life, if there is any obvious sign of impairment, the impairment test will be conducted at the end of the period.

As for the intangible assets with indefinite useful lives, the Company shall conduct the impairment test at the end of the period.

Impairment test will be conducted for intangible assets, and the recoverable amount thereof will be estimated. If there are indications of possible impairment of an intangible asset, the Company will estimate its recoverable amount on an individual basis. If it is difficult for the Company to estimate the recoverable amount of the individual asset, the recoverable amount of an asset group to which the said intangible asset belongs to will be determined.

The recoverable amount is determined at the higher of the net of the fair value less disposal costs and the present value of the expected future cash flows.

When the recoverable amount of the intangible asset is lower than its book value, the book value of the intangible asset will be written down to its recoverable amount. The reduction is recognized as an impairment loss of the intangible asset, and included into current profit or loss, while corresponding impairment provision of the intangible asset will be provided.

After the impairment loss of the intangible asset is recognized, the depreciation or the amortization fees for impairment of the intangible asset will be adjusted in future periods to allow that the adjusted book value (less net estimated residual value) of the intangible asset is systematically amortized over their remaining useful life.

Impairment loss on the intangible assets shall not be reversed in subsequent accounting periods, once recognized.

4.19.4 Specific criteria for classifying research and development stages of internal research and development projects of the Company

Expenditures on an internal research and development project of the Company consist of research expenditures and development expenditures.

Research stage: research stage is the stage when creative and planned investigation and research activities are conducted to acquire and understand new scientific or technological knowledge.

Development stage: Development stage is the stage when the research achievements and other knowledge are applied to a plan or design, prior to the commercial production or use, so as to produce any new or substantially improved material, device or product.

4.19.5 Specific criteria for qualifying expenditure at the development stage for capitalization

Expenditures arising from development stage on internal research and development projects must be capitalized if the Company can satisfy all of the following criteria simultaneously:

(1) It is technically feasible to finish intangible assets for use or sale;

(2) It is intended to finish and use or sell the intangible assets;

(3) The method that the intangible assets generate economic benefits, including the existence of a market for products produced by the intangible assets or for the intangible assets themselves, shall be proved. Or, if to be used internally, the usefulness of the assets shall be proved;

(4) With the support of sufficient technologies, financial resources and other resources, it is able to finish the development of the intangible assets, and it is able to use or sell the intangible assets; and

(5) The expenditures attributable to the intangible assets during their development phase can be reliably measured.

If the above conditions are not satisfied, expenditure on the development phase shall be included in current profit or loss when it occurs. Expenditure on the research stage shall be included in current profit or loss when it occurs.

4.20 Goodwill

For goodwill arising from business combination under common control, its initial cost is the difference of the acquisition cost in excess of the share of fair value of the acquiree's identifiable net assets acquired in the merger.

Goodwill will be transferred out upon the disposal of the related asset group or combination of asset group and be included into current profit or loss.

The Company does not amortize the goodwill, and conducts impairment test for the goodwill at least once at the end of each year.

The Company conducts an impairment test for the goodwill. The book value of goodwill arising from business combinations is amortized to relevant asset groups with a reasonable method since the date of acquisition; or amortized to relevant combinations of asset groups if it is difficult to be amortized to relevant asset groups. When apportioning the book value of goodwill, the Company will conduct the apportionment according to the relative benefits that the relevant asset group or combination of asset groups can obtain from the synergies of the business combination, and conduct a goodwill impairment test on this basis.

When making an impairment test on the relevant asset groups or combination of asset groups containing goodwill, if any indication shows that the asset groups or combinations of asset groups may be impaired, the Company shall first conduct an impairment test on the asset groups or combinations of assets groups not containing goodwill, calculate the recoverable amount and compare it with the relevant book value to recognize the corresponding impairment loss. Then the Company shall conduct an impairment test on the asset groups or combinations of asset groups containing goodwill, and compare the book value of these asset groups or combinations of asset groups (including the book value of the goodwill apportioned thereto) with the recoverable amount. Where the recoverable amount of the relevant asset groups or combinations of asset groups is lower than the book value thereof, the Company shall recognize the impairment loss of the goodwill.

Losses from goodwill impairment shall not be reversed in subsequent accounting periods once recognized.

4.21 Long-term deferred expenses

Long-term deferred expenses of the Company include expenses from improvement of the fixed assets acquired through operating lease.

Long-term deferred expenses are measured at the actual costs and amortized evenly over the estimated beneficial period. If an item of long-term deferred expense cannot bring any benefit in future accounting periods, the amortized value of such item shall all be transferred to the current profit or loss.

4.22 Employee compensation

4.22.1 Short-term compensation

During the accounting period when employees serve the Company, the actual short-term compensation is recognized as liabilities and included in current profit or loss or costs associated with assets.

During the accounting period when employees serve the Company, the corresponding amount of employee compensation is calculated and determined according to the provision basis and provision proportion as stipulated in the provisions on the social insurance premiums such as the medical insurance premiums, work-related injury insurance premium and maternity insurance premium and housing funds paid for employees by the Company, as well as trade union funds and employee education funds.

Employee benefits in the non-monetary form shall be measured at fair value.

4.22.2 Dismissal welfare

When the Company cannot unilaterally withdraw the dismissal benefits arising from the termination of employment or layoff proposal, or confirm the costs or expenses associated with reorganization involving in the payment of the dismissal benefits (whichever is earlier), liabilities arising from the dismissal benefits will be recognized and included into current profit or loss.

4.22.3 Post-employment benefits

(1) Defined contribution plans

The Company pays basic pension insurance and unemployment insurance for its employees in accordance with relevant provisions of local government. During the accounting period when the Company receives services from employees, the payable amount calculated based on the basis and proportion as prescribed in local place is recognized as a liability and included in current profit or loss, or related asset cost.

In addition to the basic endowment insurance, the Company also sets up enterprise annuity payment system (supplementary endowment insurance) in accordance with relevant occupational pension system of the State. The Company pays to the local social insurance institutions at a certain proportion of the total salary of staff, and the corresponding expenses should be included into the current profit or loss or related assets cost.

(2) Defined benefit plans

The Company attributes the benefit obligation under the defined benefit plan to the period during which employees provide service to the Company, based on the formula determined based on the estimated accumulated benefit unit method, and charges the same to the current profit or relevant cost of assets

The deficit or surplus arising from the balance of the present value of the obligations of the defined benefit plans net of the fair value of assets thereof is recognized as a net liability or net asset of the defined benefit plan. For a surplus of defined benefit plan, the Company shall measure net assets of such defined benefit plan by the lower one between the surplus of defined benefit plan and the upper limit of assets thereof.

Obligations under the defined benefit plan, including the payment obligation that is expected to be done within 12 months following the annual reporting period when the employees serve for the Company, are discounted at the market yield of the national debt matching with the obligatory term and the currency type of the defined contribution plan on the balance sheet date or the bonds of high-quality companies in the active market.

Service costs arising from defined benefit plan and net interest of net liabilities or assets of defined benefit plan are included in current profit or loss or relevant asset costs; changes arising from re-measurement of net liabilities or assets of defined benefit plan are included in other comprehensive income, and will not be transferred to profit or loss in the subsequent accounting period. When the original defined benefit plan terminates, the portion originally included in other comprehensive income will all be transferred to undistributed profit.

For the settlement of the defined benefit plan, the balance between the present value and the settlement price under the defined benefit plan confirmed on the settlement date shall be recognized and settled as gains or losses.

4.23 Share-based payment

4.23.1 Types of share-based payment

The Company's share-based payments are transactions in which the Company grants equity instruments or undertakes equity-instrument-based liabilities in return for services from employees (or other parties).The share-based payments of the Company consist of equity-settled share-based payments and cash-settled share-based payments.

(1) Equity-settled share-based payment and equity instruments

The equity-settled share-based payment in return for services from employees shall be measured at the fair value of the equity instruments granted to the employees. Where the Company makes share-based payments in restricted stocks and the employee makes capital contributions to subscribe such shares, such shares should not be circulated or transferred before they reach unlocked conditions and before they are unlocked; if the unlocked conditions specified in the final equity incentive plan fail to be reached, then the Company should repurchase the shares at the price agreed in advance. When the Company received the payment of the employee for the subscription of restricted stocks, it should recognize share capital and capital reserves (share premiums) in accordance with the payment for subscription received. The Company should fully recognize a liability at the repurchase obligations and recognize treasury stock at the same time. On each balance sheet date within the waiting period, the Company will, based on the newly-acquired subsequent information such as the changes in the number of the vested employees and whether the specified performance is reached, make the best estimate on the number of the vesting equity instruments. On such basis, the services received in the current period should be included in the relevant cost or expenses according to fair value on the date of grant and capital reserves should be accordingly increased. After the vesting date, no adjustments will be made to the sum of the relevant recognized costs or expenses and total owners' equity. As to an equity-settled share-based payment in return for services of employees, if the right may be exercised immediately after the grant, the fair value of the equity instruments shall, on the date of the grant, be included in the relevant cost or expense and the capital reserves shall be increased accordingly.

Costs and expense shall not be recognized for the share-based payment failing to be excised finally, unless the non-vesting condition being the marketing condition or the vesting condition, under which circumstance, the vesting shall be deemed, if only the non-marketing condition in all vesting conditions is satisfied.

If the terms of the equity-settled share-based payments are modified, the services received should be recognized at least in accordance with the unmodified terms. Moreover, the modification from any increase of fair value of equity instruments granted, or beneficial changes to the employee on the modification date should be recognized as increases in services obtained.

If the equity-settled share-based payment is cancelled, it shall be handled as accelerated vesting, and the amount not confirmed yet shall be recognized immediately. Where employees or other parties could choose to meet non-vesting conditions but failed to meet the conditions in the vesting period, they should be handed as cancelling the equity-settled share-based payment. However, if new equity instruments are granted, which are recognized as the replacement of the cancelled equity instrument on the grant data , the granted equity instrument for replacement shall be handled in the same way with the disposal of revision of provisions on the original equity instrument and conditions.

(2) Cash-settled share-based payment and equity instruments

A cash-settled share-based payment shall be measured in accordance with the fair value of liability calculated and confirmed based on the shares or other equity instruments undertaken by the Company. The cash-settled share-based payment is initially measured by adopting XXX model and at the fair value on the date of grant, with considering the terms and conditions on granting equity instruments. For details, please refer to the Note "X. Share-based payment". Where equity-settled share-based payments are immediately exercised after the grant, they shall be included in the relevant cost or expenses based on the fair value on the grant date and the capital reserves should be accordingly added; if the right can be exercised only when the services within the waiting period come to an end or until the prescribed performance conditions are met, then the services obtained in the current period shall be included in the relevant costs or expenses based on the best estimate of the equity instruments with vesting rights within the waiting period and according to the fair value of the liabilities borne, and the corresponding liabilities shall be added. The Company shall, on each balance sheet date and on each account date prior to the settlement of the relevant liabilities, re-measure the fair values of the liabilities and include the changes into the current profit or loss.

4.23.2 Recognition method of fair values of equity instruments

For the shares granted with active market and other equity instruments, the Company will determine their fair values based on the prices quoted in the active market and at the same time, consider the terms and conditions based on which the shares are granted. For the options granted without active market and other equity instruments, the Company will determine their fair values by using the options pricing model and other valuation techniques and at the same time, consider the terms and conditions based on which the shares are granted.

4.23.3 Basis for recognition of best estimates of the equity instruments with exercisable rights

On each balance sheet date of the waiting period, best estimates of the equity instruments will be made according to the latest subsequent information including changes in the number of employees with exercisable rights and the Company will revise the expected number of the exercisable equity instruments. On vesting date, the final predicted number of exercisable equity instruments and the actual number shall be the same.

4.24 Bonds payable

The publicly offered bonds are initially measured at the amount of the fair value less the transaction costs and are measured subsequently based on the amortized costs under the effective interest rate method during the remaining period.

The interest costs will be capitalized when they are eligible for capitalization, otherwise they will be included in the current profit or loss directly.

4.25 Estimated liabilities

When the Company involves in proceedings, debt guarantees, onerous contracts and reorganization events, if such events may require delivery of assets or rendering of services in the future and the amounts of such events can be reliably measured, such events are recognized as estimated liabilities.

4.25.1 Recognition criteria of estimated liabilities

When an obligation relating to a contingency meets all the following conditions at the same time, it is recognized as an estimated liability by the Company:

(1) Such obligation is a present obligation of the Company;

(2) The performance of such obligation is likely to result in outflow of economic benefits from the Company;

(3) The amount of the obligation can be measured reliably.

4.25.2 Measurement method of estimated liabilities

Estimated liabilities of the Company is initially measured as the best estimate of expenses required for the performance of the relevant present obligations.

When determining the best estimates, the Company comprehensively considers the risks, uncertainties, time value of money, and other factors relating to the contingencies. If the time value of money is significant, the best estimates will be determined after discount of relevant future cash outflows.

The best estimates shall be treated as follows in different circumstances:
If there is continuous range (or interval) for the necessary expenses, and probabilities of occurrence of all the outcomes within this range are equal, the best estimate should be determined at the average amount of upper and lower limits within the range.

If there is no continuous range (or interval) for the necessary expenses, or probabilities of occurrence of all the outcomes within this range are unequal although such a range exists, in case that the contingency involves a single item, the best estimate shall be determined at the most likely outcome; if the contingency involves two or more items, the best estimates should be determined according to all the possible outcomes with their relevant probabilities.

When all or part of the expenses necessary for the settlement of estimated liabilities of the Company are expected to be compensated by a third party, the compensation shall be separately recognized as an asset only when it is virtually certain to be received. The compensation recognized shall not exceed the book value of the estimated liabilities.

4.26 Preferred shares, perpetual bond and other financial instruments

The Company classifies the financial instruments or their components as financial assets, financial liabilities or equity instruments at the initial recognition, in accordance with contractual terms relating to the preferred shares or perpetual bonds issued and economic substance reflected, and in combination with the definition of financial assets, financial liabilities and equity instruments.

When the perpetual debts/preferred stocks and other financial instruments issued by the Company meet one of the following conditions, the whole or the constituent part of such financial instruments should be classified as financial liabilities upon initial recognition:

(1) There are contractual obligations that the Company cannot unconditionally avoid performing by delivering cash or other financial assets;

(2) Contractual obligations on the delivery of their own equity instruments with a variable number for settlement are included;

(3) Derivative instruments that are settled with their own equity (such as equity transfer, etc.) are included, and such derivative instruments are not settled by exchanging their own equity instruments with a fixed number for a fixed amount of cash or other financial assets;

(4) There are contract clauses that indirectly form contract obligations; or

(5) When the issuer liquidates, the perpetual debts are in the same liquidation order as the general bonds and other debts issued by the issuer.

For the perpetual debts/preferred stocks or other financial instruments that fail to meet any one of the above conditions, the whole or the constituent parts of such financial instruments should be classified as equity instruments upon initial recognition.

For preferred shares or perpetual bonds issued by the Company, including equities and liabilities simultaneously, the Company disposes them according to the accounting policy, which applies to the convertible tool including equities. For preferred shares or perpetual bonds issued by the Company, excluding equities, the Company disposes them according to the accounting policy, which applies to the convertible tool excluding equities.

For preferred shares issued by the Company and should be classified into the equity instruments, the Company includes the paid-in amount in the equity instruments. If the distribution of dividends and interest exists over the duration, such preferred shares shall be distributed as profit. If the preferred shares have been redeemed according to contract terms, the redemption price shall be used to offset relevant equities.

4.27 Revenue

Companies that have not yet implemented the New Revenue Standards

4.27.1 Recognition of revenue from sales of goods

Revenue from sale of good are recognized when meeting the following conditions at the same time:

(1) The Company has transferred significant risks and rewards of ownership of the goods to the buyer;

(2) The Company retains neither continuous management rights associated with ownership of the goods sold nor effective control over the goods sold;

(3) It is probable that the amount of revenue can be measured reliably;

(4) The related economic benefits are likely to flow into the Company;

(5) The relevant amounts of costs that have occurred or will occur can be measured reliably.

4.27.2 Recognition of revenue from rendering of service

Where the transaction result of rendering of service can be estimated reliably, revenue from rendering of service is recognized by using the percentage-of-completion method at the end of the period.

4.27.3 Recognition of revenue from transferring use right of assets

The economic benefits associated with the transaction are likely to flow into the enterprise, and the amount of revenue can be measured reliably. Revenue from transferring use right of assets are recognized under the following circumstances:

(1) Interest income is determined based on the time when the monetary funds are lent and the effective rate.

(2) The amount of revenues from usage is determined based on the charging time and method as agreed in relevant contract or agreement.

4.27.4 Basis and method of recognizing the progress of completion, when determining revenue from rendering of service and revenue from construction contract at percentage-of-completion method

When the outcome of a service transaction can be estimated reliably on the balance sheet date, revenue from rendering of service shall be recognized at the percentage-of-completion method. The percentage of completion of rendering of services shall be determined based on the measurement of the completed work.

The total cost for provision of labor services will be determined in accordance with the contract or agreement price received or receivable, except that the received or receivable contract or agreement price is unfair. The current revenue from the rendering of labor services is recognized at the amount of multiplying the total revenue from the rendering of labor services by completion progress and deducting the accumulated revenue from the rendering of labor services recognized in previous accounting periods on the balance sheet date; meanwhile, the current cost of labor services is carried forward by the amount of multiplying the total costs of the rendering of labor services by completion progress and deducting the accumulated revenue from the rendering of labor services recognized in previous accounting periods.

When the outcome of transactions involving the rendering of services cannot be estimated reliably, it should be handled on the balance sheet date as follows:

(1) If the service costs incurred are expected to be recoverable, the amounts equal to the costs incurred should be recognized as service revenues and the equivalent amounts should be included into the service costs.

(2) If the service costs incurred are not expected to be fully compensated, revenues from rendering of service are not recognized and the service costs incurred are included in the current profit or loss.

Companies that have implemented the new revenue standards

The Company's subsidiaries China Power International Development Limited, SPIC Pacific Energy Pty Ltd and SPIC Brazil Energia Participaçoes S.A. implemented the new revenue standards from January 1, 2018 upon approval by the board of directors. The accounting policies implemented by the Company are as follows:

Accounting policies for revenue recognition and measurement

The Company recognizes revenue when its performance obligations as stipulated in the contract are fulfilled, that is, when the customer obtained control of the related goods. Where the contract contains two or more performance obligations, the Company will allocate the transaction price to each individual performance obligation based on the relative proportion of the individual selling price of the goods promised by each individual performance obligation on the contract commencement date and measure the income according to the transaction price allocated to each individual performance obligation.

The transaction price is the amount of consideration that the Company expects to receive for the transfer of goods to customers. When determining the price of a transaction, if there is a variable consideration, the Company determines the best estimate of the variable consideration according to the expected value or the most likely amount, and will include it in the transaction price that does not exceed the accumulatively recognized revenue that is highly unlikely to have a major reversal when the relevant uncertainty is eliminated. If there is a significant financing component in the contract, the company will adjust the transaction price according to the financing component in the contract; if the interval between the transfer of control and the payment by the customer does not exceed one year, the Company will not consider the financing component.

If the Company meets one of the following conditions, it shall perform the performance obligation within a certain period of time; otherwise, it shall perform the performance obligation at a certain point of time:

(1) The customer obtains and consumes the economic benefits brought by the performance of the Company while the company is performing the obligation.

(2) Customers are able to control the goods under construction in the Company's performance process.

(3) The goods produced by the Company during the performance of the contract have irreplaceable uses, and the Company has the right to receive payments for the portion of the performance that has been completed to date.

If the performance obligation is fulfilled within a certain period, the Company will recognize the revenue according to the progress of the performance. Otherwise, the Company will recognize the revenue at a certain point in time when the customer obtains control of the relevant goods.

4.28 Construction contract

4.28.1 Construction contract revenue includes the following contents

(1) The initial revenue specified in the contract;

(2) The revenue from the alteration of contracts, claims, rewards, etc.

4.28.2 Confirmation of contract revenue

(1) The alteration of contracts shall be recognized as contract revenues when the following conditions are simultaneously satisfied:

1) The customers recognize the revenues increased due to the alteration;

2) The revenue can be measured reliably.

(2) The claims shall be recognized as the contract revenues when the following conditions are simultaneously satisfied:

1) The other party is expected to accept the claim based on the negotiation;

2) The amount which the other party agrees to accept can be reliably measured.

(3) The reward shall be recognized as the contract revenues when the following conditions are simultaneously satisfied:

1) It is enough to judge that the project progress and quality can reach or surpass the standards as stipulated in the contract based on the progress of the completion;

2) The reward can be measured reliably.

4.28.3 Confirmation of contract costs

Contract costs include the direct expenses and indirect expenses related to the execution of the contract incurred from the signing of the contract to the completion of the contract.

Direct costs are directly included in the contract costs when incurred, and indirect costs are amortized and included in contract costs on the balance sheet date using systematic and reasonable method.

The contract costs may be offset against by any incidental income pertinent to the contract, such as the income from the disposal of surplus materials after the completion of the contract.

Contract costs do not include the general and administrative expenses, selling and distribution expenses and financial expenses included in the current profit or loss. Relevant expenses arising from the conclusion of the contract are included in the current profit or loss directly.

4.28.4 Confirmation of contract revenue and contract costs

At the end of the period, if the outcome of a construction contract can be reliably estimated, the revenues and costs from the construction contract will be recognized by the completion percentage method on the balance sheet date. Where the outcome of a construction contract cannot be estimated reliably, the Company will handle the same according to the following circumstances: If the contract cost incurred is expected to be fully recoverable, the amount equal to the cost incurred should be recognized as revenue and the contract cost should be recognized as expenses when incurred; if the service cost incurred is not expected to be fully recoverable, it should be recognized as expenses when incurred.

4.28.5 Method of determining the progress of contract completion

The progress of the completion is recognized based on the proportion of the actually incurred contract costs accumulated in the estimated total costs.

4.28.6 Recognition and provision for estimated contract losses

The Company will conduct impairment test at the end of the period for the contract for the construction in progress. When the estimated total costs of the construction contracts exceed the total contract income, the estimated contract losses are incurred, and the provisions for losses are made and recognized as the current expenses. When the contract is completed, the provisions for losses which have been withdrawn are used to offset the contract expenses.

4.29 Contract costs

Companies that have implemented the new revenue standards

The Company's subsidiaries China Power International Development Limited, SPIC Pacific Energy Pty Ltd and SPIC Brazil Energia Participaçoes S.A. implemented the new revenue standards as of January 1, 2018 upon the resolution of the board of directors. The accounting policies of the above companies shall be as follows:

The contract costs are divided into contract performance costs and contract acquisition costs.

The costs incurred by the Company for the performance of the contract are recognized as an asset as contract performance costs when the following conditions are met:

1 The costs are directly related to a current or expected contract obtained.

2 The costs increase the resources of the Company to fulfill its performance obligations in the future.

3 The costs are Expected to be uncollectible.

If the incremental cost incurred by the Company for obtaining the contract is Expected to be uncollectible, the contract acquisition cost is recognized as an asset.

The assets related to contract costs are amortized on the same basis as revenue recognition for goods or services related to the asset; however, if the amortization period of contract acquisition costs does not exceed one year, the Company will include them in the current profit or loss when it occurs.

If the assets related to contract costs whose carrying amount is higher than the difference between the following two items, the Company will make provision for impairment for the excess part and recognize it as loss from asset impairment:

1 The remaining consideration expected to be obtained due to the transfer of goods or services related to the asset;

2 Estimate the costs that will occur in order to transfer the relevant goods or services.

If the above provision for asset impairment is reversed, the book value of the asset upon the reversal shall not exceed the book value of such assets on the reversal date under the assumption that no provision for impairment is made.

4.30 Government subsidies

4.30.1 Classification of government subsidies

Government subsidies refer to the monetary or non-monetary assets obtained by the Company from the government for free. Government subsidies are divided into asset-related government subsidies and income-related government subsidies.

Asset-related government subsidies refer to government subsidies obtained by the Company for forming long-term assets by acquisition, construction or other manners. Income-related government subsidies refer to those other than the asset-related government subsidies

4.30.2 Measurement and derecognition of government subsidies

Government subsidies are recognized when the Company can meet the conditions for the government subsidies and can obtain the subsidies.

Government subsidies in the form of monetary assets are measured at the amount received or receivable. The government subsidies offered in the form of non-monetary assets are measured at fair value or at the nominal value if the fair value cannot be reliably obtained.

Asset-related government subsidies shall be used to offset the book value of relevant assets or recognized as deferred income. Where such subsidies are recognized as the deferred income, they will be included in the current profit or loss by reasonable and systematic methods within useful lives of related assets (where such subsidies are related to the routine activities of the Company, they will be included in other income; where such subsidies are not related to the routine activities of the Company, they will be included in non-operating income). Where relevant assets are sold, transferred, scraped or damaged before the end of their lives, balance of the unallocated deferred income is transferred to the current profit or loss on asset disposal.

Income-related government subsidies used to compensate for relevant costs or losses which will occur in the following period in the Company shall be recognized as the deferred income, and, during the period when relevant costs or losses are recognized, be included in the current profit or loss (where income-related government subsidies are relevant to routine activities of the Company, such subsidies shall be included in the other income; where income-related government subsidies are irrelevant to routine activities of the Company, such subsidies shall be included in the non-operating income) or used to offset relevant costs or losses; income-related government subsidies used to compensate for relevant costs or losses incurred in the Company shall be included in the current profit or loss (where income-related government subsidies are relevant to routine activities of the Company, such subsidies shall be included in the other income; where income-related government subsidies are irrelevant to routine activities of the Company, such subsidies shall be included in the non-operating income) or used to offset relevant costs or losses.

Government subsidies measured at nominal amount are included in current profit or loss.

The interest subsidies of policy-based preferential loans obtained by the Company are subject to the following accounting treatments according to two situations:

(1) When the finance department appropriates the interest subsidies to the lending bank, and the lending bank provides the loan at the policy-based preferential interest rate to the Company, the Company will take the book-entry value at the loan amount actually received, and relevant loan expenses are calculated based on the principal of the loan and the policy-based preferential interest rate.

(2) Where the finance department directly appropriates the interest subsidies to the Company, the Company will use the corresponding interest subsidies to offset related borrowing costs.

4.30.3 Accounting treatment for the refund of government subsidies

Where any government subsidies recognized need to be returned, accounting treatment will be conducted for in the period when they shall be returned:

(1) When the book value of the relevant assets is set off upon initial recognition, the book value of the asset is adjusted;

(2) Where there is relevant deferred income, the book balance of the deferred income is written down, and the write-downs are included in current profit or loss;

(3) If they fall under other circumstances, they will be directly included in current profit or loss.

4.31 Deferred income tax assets and deferred income tax liabilities

Deferred income tax assets are recognized for deductible temporary differences to the extent that it shall not exceed the taxable income probably obtained in future period that can be used for deducting the deductible temporary differences. For deductible losses and tax credits that can be carried forward to subsequent periods, deferred income tax assets arising therefrom are recognized to the extent of the taxable income probably obtained in future period that can be used for deducting the deductible losses and tax credits.

Taxable temporary differences are recognized as deferred income tax liabilities except in special circumstances.

Special circumstances in which deferred income tax assets or deferred income tax liabilities shall not be recognized include: the initial recognition of goodwill; other transactions or matters excluding business combinations, which affect neither accounting profits nor the taxable income (or deductible losses) when occurred.

When the Company has the statutory right to do settlement with the net amounts, and has the intention to do so or the recovery of assets and the settlement of liabilities are achieved simultaneously, the Company shall present its current income tax assets and current income tax liabilities at the net amounts as the result of one offsetting another.

When the Company has the legal rights to balance income tax assets and income tax liabilities for the current period with net settlement, and deferred income tax assets and deferred income tax liabilities are related to the income tax which are imposed on the same taxpaying subject by the same tax collection authority or on different taxpaying subjects, but, in each important future period in connection with the reverse of deferred income tax assets and liabilities, the involved taxpaying subject intends to balance income tax assets and liabilities for the current period with net settlement at the time of obtaining assets and discharging liabilities, deferred income tax assets and deferred income tax liabilities shall be presented based on the net amount after offset.

4.32 Lease

Companies that have not yet implemented the new lease standards

The Company recognizes the lease where almost all risks and compensation relevant to the ownership of assets have been substantially transferred (no matter whether the said ownership has been transferred finally) as the finance lease, and other leases other than the finance lease as the operating lease.

4.32.1 Accounting treatment of operating lease

(1) Lease fees paid by the Company for leased asset shall be amortized at straight-line method over the whole lease period (including rent-free period) and will be included in the current expenses. The initial direct costs related to the lease transactions paid by the Company are included in the current expenses.
If the expense related to the lease which shall be paid by the Company is assumed by the lessor of the asset, then such expenses shall be deducted from total lease fees, and the balances shall be amortized over the lease terms and charged to the current expenses.

(2) The Company's rental expenses collected for leased assets shall, within the whole lease term excluding the rent-free period, be amortized with the straight-line method and recognized as rental income. Initial direct costs relating to lease transactions incurred by the Company shall be recognized as the current expenses; if the amounts are material, they shall be capitalized and included in the current income on the same basis as the recognition of lease income.
If the expenses related to the lease which shall be paid by the lessee are borne by the Company, such expenses shall be deducted from total lease income by the Company, and residual lease fees shall be amortized over the lease term.

For the assets leased out under operating lease, they will be included into the relevant items in the balance sheet according to the nature of the assets. For fixed assets leased out under the operating lease, they shall be subject to the provision of deprecation according to the depreciation policies on the similar fixed assets of the Company; other assets leased out under the operating lease shall be amortized with the systematic and reasonable method.

4.32.2 Judgment standards and accounting treatment of finance lease

(1) Where a lease satisfies one or more of the following criteria, it shall be recognized as a finance lease:

- The ownership of the leased asset is transferred to the lessee when the term of lease expires;
- The lessee has the option to buy the leased asset at a price which is expected to be far lower than the fair value of the leased asset at the date when the option becomes exercisable. Thus, on the lease commencement date, it can be reasonably determined that the option will be exercised by the lessee;
- Even if the ownership of the asset is not transferred, the lease term covers the major part of the useful life of the leased asset;
- The present value of the minimum payment by the lessee on the lease commencement date is almost equal to the asset’s fair value; the present value of the minimum receipt by the lessor on the lease commencement date is almost equal to the asset's fair value.
- The leased asset is of such a special nature that only the lessee can use it without making major modifications.

(2) Assets acquired under finance leases: At the commencement of the lease term, assets acquired under finance leases shall be recorded at the lower of their fair values and the present values of the minimum lease payments, and the Company shall recognize the long-term payables at amounts equal to the minimum lease payments, and shall record the differences between book value of the leased assets and the long-term payables as unrecognized finance charges. The Company adopts the effective interest rate method for unrecognized financing charges, which shall be amortized over the lease term and included in financial expenses. The Company records the initial direct costs in the value of leased assets.

(3) Assets rented out under finance leases: On the lease beginning date, the Company recognizes the difference between the sum of finance lease receivable and the unguaranteed residual value, and the present value thereof as unrealized financing income, and recognize the same as rental income over the periods when rent is received in the future. The Company's initial direct costs associated with the rental transactions shall be included in the initial measurement of the finance lease receivables and the amount of revenue recognized during the lease term shall be reduced.

Companies that have implemented the new lease standards

The Company's subsidiaries China Power International Development Limited, SPIC Pacific Energy Pty Ltd and SPIC Brazil Energia Participaçoes S.A. implemented the new lease standards from January 1, 2019 upon resolution by the board of directors. The accounting policies implemented by the Company are as follows:

Lease refers to a contract in which a lessor assigns the right to use an asset to a lessee within a certain period of time in order to obtain consideration. On the contract commencement date, the Company evaluates whether the contract is a lease or includes a lease. If a party to a contract transfers the right to control the use of one or more identified assets within a certain period in exchange for consideration, the contract shall be a lease or include a lease.

If the contract contains multiple individual leases, the lessee and the lessor will split the contract and make accounting treatment over each individual lease. If the contract contains both leased and non-leased parts, the lessee and lessor will split the leased and non-leased parts.

4.32.3 The Company as a lessee

(1) Right-of-use assets

As at the beginning of the lease period, the Company recognizes the leases other than short-term leases and leases of low-value assets as the right-of-use assets. Right-of-use assets are initially measured at cost. Such costs include:

- The initial measurement amount of lease liabilities;
- In case of any lease incentives, relevant amount of the lease incentives enjoyed shall be deducted from the lease payment paid on or before the commencement date of the lease term;
- The initial direct costs incurred of the Company;

- The costs incurred of the Company for demolishing and removing leased assets, restoring the site where the leased assets are located, or restoring the leased assets to the state agreed in the lease terms. The Company recognizes and measures the cost in accordance with the recognition standards and measurement methods described in Note 4.25 Estimated liabilities. Such cost is included in inventory costs incurred for the production of inventory.

The Company adopts the straight-line-method to make the provision for the depreciation of the right-of-use assets. Where it can be reasonably certain that the Company will obtain ownership of the leased asset at the expiry of the lease term, the right-of-use assets are depreciated over the useful life; where it cannot be reasonably certain that the Company can obtain ownership of the leased asset at the end of the lease term, the leased assets are depreciated at the shorter of the lease term and the remaining use life of the leased assets.

(2) Lease liabilities

As at the beginning of the lease period, the Company recognizes the leases other than short-term leases and leases of low-value assets as lease liabilities. Lease liabilities are initially measured at the present value of the lease payments that have not been paid. Lease payments include:

- For fixed payments (including substantial fixed payments), if there is any lease incentive, the relevant amount of the lease incentive shall be deducted;

- Variable lease payments depending on the index or ratio;

- The payments expected to be payable based on the residual value of the guarantee provided by the Company;

- Exercise price of purchase option, provided that the Company reasonably determines that it will exercise the option;

- The amount to be paid to exercise the lease termination option, provided that it is reflected that the Company will exercise the lease termination option during the lease period;

The Company adopts the implicit rate of lease as the discount rate, but if the implicit rate of lease cannot be reasonably determined, the incremental borrowing rate will be adopted as the discount rate.

The Company calculates the interest expenses of lease liabilities in each lease term based on a fixed periodic interest rate, and includes such expenses into the current profit or loss or the cost of related assets.

The variable lease payments not included in the measurement of lease liabilities shall be included in the current profit or loss or the costs of related assets when they actually occur.

After the commencement date of the lease period, the Company will re-measure the lease liabilities based on the present value of the lease payments after changes:

- Any change in the estimated payable amount based on the residual value of the guarantee;

- Any change in the index or ratio used to determine lease payments;

- Any change in the evaluation results of the purchase option, lease renewal option or lease termination option, or any inconsistency between the actual exercise of the lease renewal option or lease termination option and the original evaluation results.

When the lease liabilities are remeasured, the Company will adjust the book value of the right-of-use assets accordingly. If the book value of the right-of-use assets has been reduced to zero and further reduction of lease liabilities is still required, the Company will include the remaining amount in the current profit or loss.

(3) Short-term lease and lease of low-value assets

The Company chooses not to recognize right-of-use assets and lease liabilities for short-term leases and leases of low-value assets, and the relevant lease payments are included in the current profit or loss or the cost of related assets by straight-line method over each period within the lease term. Short-term leases refer to leases that do not exceed 12 months on the commencement date of the lease period and do not include any purchase option. Low-value asset lease refers to the lease of a single lease asset with lower value when it is brand new. For the lease asset subleased by the Company subleases or expected to be subleased, the original lease is not a lease of low-value assets.

(4) Lease change

If the lease changes and the following conditions are met at the same time, the Company will carry out accounting treatment over the lease change as a separate lease:

1) Where the lease change expands the scope of the lease by adding the right to use one or more leased assets;

2) Where the increase of the consideration is equivalent to the adjusted individual price of the expanded part of the lease scope according to the contract.

Where the lease change is not accounted for as a separate lease, on the effective date of the lease change, the Company will re-distribute the consideration of the contract after the change, re-determine the lease period, and re-measure lease liabilities according to the present value calculated by the changed lease payments and the revised discount rate.

4.32.4 The Company as the lessor

Leases of the Company are classified as finance lease and operating lease on the lease commence date. Lease under which almost all the risks and rewards relevant to the ownership of leased assets are materially transferred is recognized as finance lease, regardless of whether the ownership is ultimately transferred. Operating lease refers to the leases other than finance lease. When the Company is a sub-lessor, it classifies the sub-leases based on the right-of-use assets generated by the original lease.

(1) Accounting treatment of operating lease

Rental from the operating lease in each stage during the rental period should be recognized as the rental income by the straight-line method. Initial direct costs relating to operating lease incurred by the Company are capitalized, and shall be included in the current profit or loss on the same basis as the recognition of lease income during the lease term. The variable lease payable that is not included in the lease receivable shall be included in the current profit or loss at the time of actual occurrence.

(2) Accounting treatment of finance lease

On the lease commencement date, the Company recognizes finance lease receivables for financial leases and derecognizes financial lease assets. When the Company conducts the initial measurement of finance lease receivables, the net lease investment is adopted as the entry value of the finance lease receivables. The net lease investment is the sum of the unguaranteed residual value and the present value of the lease payments that have not been received at the beginning of the lease term and discounted at the interest rate included in the lease.

The Company calculates and recognizes the interest expenses in each lease term based on a fixed periodic interest rate. The derecognition and impairment of finance lease receivables shall be accounted for in accordance with "4.9 Financial instruments" herein.

The variable lease payable that is not included in the net lease investment for measurement shall be included in the current profit or loss at the time of actual occurrence.

4.32.5 Sale-and-leaseback deal

The Company evaluates and determines whether the transfer of assets in the sale-and-leaseback transaction is a sale in accordance with the principles described in 4.27 Revenue herein.

(1) The Company as the lessee

If the asset transfer in the sale-leaseback transaction belongs to sales, the Company as the lessee measures the right-of-use assets formed by the sale-leaseback according to the part related to the use right obtained from the leaseback in the original book value of assets, and only recognizes the relevant gains or losses only for the rights transferred to the lessor; If the asset transfer in the sale-and-leaseback transaction does not belong to the sale, the Company, as the lessee, continues to confirm the transferred assets and recognizes a financial liability equivalent to the transfer income. Please refer to Note 4.9 financial instruments for the accounting treatment for financial liabilities.

(2) The Company as the lessor

Where the asset transfer in the sale-leaseback transactions belongs to sales, the Company as the lessor conducts the accounting treatment for purchase of assets, and conducts the lease of assets in accordance with the policy on "2. the Company as a lessor" stated above; where the asset transfer in the sale-leaseback transactions belongs to sales, the Company as the lessor does not recognize the transferred assets, but confirms a financial asset equivalent to the transfer revenue. Please refer to Note 4.9 financial instruments for the accounting treatment for financial assets.

4.33 Held for sale

The Company recognizes non-current assets or disposed asset portfolios meeting the following conditions at the same time as assets held for sale:

(1) According to the general practice for selling such kind of asset or disposed asset portfolio in the similar transaction, the asset or portfolio can be immediately sold in the prevailing circumstance;

(2) The sale of the asset or portfolio is very likely to happen, which means that the Company has made a resolution for one selling plan and had acquired decided purchase commitment, and it is estimated that the sale will be completed within one year. Where the sale can be done only upon the approval of relevant authorities or regulatory authorities of the Company as required by relevant provisions, the approval has been obtained.

For a non-current asset or disposal group classified to be held for sale, if the book value thereof is higher than the net amount of the fair value less the sale cost, the book value shall be written down to the net amount of the fair value less the sale cost, and the write-down amount shall be recognized as the loss from asset impairment and included in the current profit or loss; meanwhile, the provision for impairment of assets held for sale shall be made.

4.34 Discontinued operation

Discontinued operations refer to the component that meets any of the following conditions, can be separately distinguished and has been disposed by the Company or classified as held for sale by the Company:

(1) The component represents an independent major business or a sole major business area;

(2) The component is a part of a related plan on intended disposal of an independent major business or a sole major business area; or

(3) The component is a subsidiary acquired only for re-sale.

4.35 Measurement at fair value

The Company measures the relevant assets and liabilities at fair value based on the following assumptions:

-The transaction that market participants sell assets or transfer liabilities at the measurement date is the orderly transaction under the current market conditions;

-The sale of assets or transfer of liabilities is carried out in the main market of the relevant assets or liabilities. If the main market does not exist, it is assumed that the said transaction is conducted in the most advantageous market for the said assets or liabilities.

-The Company adopts the assumption that the market participants price the assets or liabilities for the purpose of realizing its utmost economic benefit.

The Company will, according to the nature of trading and characteristics of related assets and liabilities, etc., recognizes the transaction price as the initially-recognized fair value.

If other relevant accounting standards require or permit the Company to conduct initial measurement on the relevant assets or liabilities at the said fair value, and the transaction value is different from the fair value, the Company includes relevant gains or losses in the current profit or loss, unless otherwise specified in other relevant accounting standards.

When the Company measures non-financial assets at fair value, it should consider a market participant's ability to generate economic benefit by using the asset or by selling it to another market participant who will use the asset in its highest and best use.

When the Company uses the valuation techniques, it has considered the valuation techniques that are applicable in the current situation and are supported by enough available data and other information. The Company gives priority to the observable inputs when using valuation techniques, and those unobservable inputs are used only under the circumstance when it is impossible to obtain relevant observable inputs or the relevant observable inputs obtained are unfeasible.

Inputs used in the fair value measurement are divided into three levels:

-Level 1 inputs are quoted prices (unadjusted) in the active market for identical assets or liabilities that the Company can access at the measurement date.

-Level 2 inputs refer to inputs that are directly or indirectly observable for the asset or liability other than Level 1 inputs.

-Level 3 inputs are unobservable inputs for the relevant asset or liability.

The fair value measurement is categorized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

The Company's assets and liabilities measured at fair value include: investment properties

4.36 Asset securitization business

The Company will securitize part of "receivables" and "long-term receivables", trust the assets to special-purpose entities which will issue the priority asset-backed securities to investors, while the Company holds the substandard assets-backed securities. When applying the accounting policies of securitized financial assets, the Company has considered the degree of risks and rewards transferred to other entities, along with the right of control exercised by the Company to such entities:

(1) When the Company has transferred substantially all of the risks and rewards related to the ownership of a financial asset to the transferee, it shall derecognize the financial asset;

(2) When the Company has retained substantially all of the risks and rewards related to the ownership of a financial asset, it shall continue recognizing the financial asset;

(3) If the Company neither transfers nor retains substantially all of the risks and rewards related to the ownership of a financial asset, it shall consider whether there is control over the financial asset. If the Company does not retain the right of control, it will de-recognize such financial asset and recognize the rights and obligations arising from or retained in the transfer as assets or liabilities. If retaining the right of control, the Company will, in accordance with the continuous involvement in the financial asset, recognize the asset and relevant liabilities accordingly.

4.37 Safe production expenses and expenses of simple reproduction maintenance

According to the Administrative Measures for the Withdrawal and Use of Expenses for Safety Production of Enterprises (CQ [2012] No. 16) issued by the Ministry of Finance and State Administration of Work Safety on February 14, 2012, the Circular of the Ministry of Finance, the National Development and Reform Commission and the State Administration of Coal Mine Safety on Issuing the Several Provisions on the Issues concerning Regulating the Management of Coal Mine Maintenance Fee (CJ [2004] No. 119) , as well as the Circular of the Ministry of Coal Industry and the Ministry of Finance on Issuing" Measures for the Administration of Afforestation Fee and Wood-raising Funds of Coal Mining Enterprises (on January 31, 1986), the safe production expenses (RMB 5.00 per ton of coal), simple reproduction maintenance fee (RMB 9.50 per ton of coal extraction) and the afforestation fee (RMB 0.15 per ton of coal extraction) drawn by the Company are separately reflected in the "special reserves" item in the owner's equity.

In accordance with the Interpretation No. 3 of the Accounting Standards for Business Enterprises (CK [2009] No. 8), when drawing the production safety expenses according to the prescribed standards, the Company includes the cost or profit or loss of the relevant products, meanwhile includes in the subject "special reserves".

When withdrawn Safe production expenses are used by the Company and belong to expenses, such costs shall be directly deducted from special reserves; where fixed assets form from the said costs, the incurred expenses are accumulated under the item "construction in progress" and are recognized as fixed assets when the safe project is completed and reaches the working conditions for its intended; Meanwhile, special reserves shall be offset according to the costs of fixed assets and the accumulated depreciation of the same amount shall be recognized. Provision for depreciation of fixed assets will be no longer made in subsequent periods.

4.38 Other significant accounting policies and accounting estimates

On September 22, 2016, the Ministry of Finance promulgated the Provisions on Regulating the Accounting Treatment for the Relevant Business of Addressing Overcapacity, Reducing inventory, Deleverage, Reducing Costs and Bolstering Areas of Weakness (CK [2016] No. 17), which came into force as of the date of promulgation, without retroactive adjustments. The provisions regulates the accounting treatment of three types of transactions, namely, "accounting treatment for free transfer of subsidiaries between wholly state-owned or wholly-owned enterprises", "accounting treatment for the "zombie enterprises" to be closed down and cleared" and "accounting treatment for the special rewards and subsidies for the restructuring of industrial enterprises by central enterprises", and stipulates the specific scope of application respectively.

4.38.1 Accounting treatment for free transfer of subsidiaries between wholly state-owned or wholly-owned enterprises (applied to the transferred enterprises)

In the work of "addressing overcapacity, reducing inventory, deleverage, reducing costs and bolstering areas of weakness", according to the relevant provisions on state-owned assets supervision departments, when the Company obtained the equity of subsidiaries for free, the Company and transferred enterprises are the wholly state-owned enterprises.

(1) Individual financial statements

The Company shall, on the date of acquiring the control of the transferred enterprise, recognize the long-term equity investments in the allocated enterprises according to the relevant amount approved by the state-owned assets supervision department, and adjust the capital reserves (capital premium).

(2) Consolidated financial statements

The Company shall incorporate the transferred enterprises into the consolidated financial statements after obtaining control of the transferred enterprises.

All assets and liabilities transferred to the enterprises shall be accounted into the consolidated balance sheet of the enterprise at the amount of book value continuously calculated to control date which has been determined upon audit and approved by the stated-owned assets supervision departments, and the capital reserves (capital premium) shall be adjusted at the same time. For the retained earnings of the transferred enterprises achieved from the base date when the state-owned assets supervision departments approve the transfer to the transfer date of control, they shall be transferred from the capital reserves to the retained earnings, to the extent of the credit balance of the Company's capital reserves (capital premium).

The consolidated income statement, consolidated statement of cash flow and consolidated statement of owner's equity during the period when the Company obtains the control of transferred enterprises reflect the net profit, cash flow and change in owner's equity of the transferred enterprises from the base date when the state-owned assets supervision departments approve the transfer to the end of the current period of the transfer of the control.

4.38.2 Free transfer of subsidiaries between wholly state-owned or wholly-owned enterprises (applied to the transferred enterprises)

In the work of "addressing overcapacity, reducing inventory, deleverage, reducing costs and bolstering areas of weakness", according to the relevant provisions on state-owned assets supervision departments, when the Company transferred out the equity of original subsidiaries for free, the Company and transferred enterprises are the wholly state-owned enterprises.

(1) Individual financial statements

The Company shall derecognize the long-term equity investment in the transferred enterprises from the date of the loss of the control of the transferred enterprises. Meanwhile, it will write down capital reserves (capital premium); if there is no sufficient balance of capital reserves (capital premium) for write-downs, the surplus reserves and undistributed profits will be written down successively.

(2) Consolidated financial statements

The Company shall derecognized the relevant assets, liabilities, minority equity and other equity items of transferred enterprises originally reflected in the consolidated financial statements from the date of the loss of the control of the transferred enterprises and write down the capital reserves (capital premium). If there is no sufficient balance of capital reserves (capital premium) for write-downs, the surplus reserves and undistributed profits will be written down successively. Meanwhile, the unrealized internal profit or loss between the Company and the transferred enterprise before the transfer of control is transferred to the capital reserves(capital premium); if there is no sufficient balance of capital reserves (capital premium) for write-downs, the surplus reserves and undistributed profits will be written down successively.

4.38.3 Subsidiaries included in the list of "zombie enterprises" to be closed down and cleared

In accordance with the relevant provisions stipulated by the government for promoting the resolution of overcapacity, the Company has subsidiaries that are defined as" zombie enterprises" and listed in the "list of "zombie enterprises" to be closed down and cleared.

(1) Individual financial statements

The long-term equity investment of the subsidiary shall be measured at the lower of the book value and the recoverable amount on balance sheet date; if the former is lower than the latter, the difference shall be recorded in the loss from asset impairment.

(2) Consolidated financial statements

The enterprises' assets shall be calculated based on liquidation value and their liabilities shall be calculated based on estimated accounting amount, and the relevant gap shall be booked in the non-operating expenses (revenue) from the beginning of the current period when they are listed as zombie enterprises. Such zombie enterprises shall no longer make depreciation or amortization for their fixed assets and intangible assets. Where the Company includes the subsidiaries into the scope of consolidated financial statements on that basis, calculates the assets and liabilities of such subsidiaries on the same basis as that of the subsidiaries, and includes the gap between the calculated amount and the amount of relevant assets, liabilities and goodwill reflected in the original consolidated financial statements in the current profit or loss.

If a subsidiary enters into the bankruptcy liquidation procedure and is taken over by a bankruptcy administrator designated by the court, and loses the control over the subsidiary, it shall no longer be included in the scope of consolidated financial statements.

4.38.4 Special rewards and subsidies for the restructuring of industrial enterprises

According to the Circular of the Ministry of Finance on Issuing the Administrative Measures for Special Rewards and Subsidies for the Restructuring of Industrial Enterprises (CJ [2018] No. 462), the Company will temporarily recognize special rewards and subsidies as the special payables at the time of receipt. After the Company has carried out the related work of resolving production capacity as required, in accordance with the calculation standards stipulated in the Document (CJ [2018] No. 462), if the Company can reasonably and reliably determine the amount of special rewards and subsidies obtained due to the completion of the task, it shall include them in the current profit or loss, and then offset special payables; if the Company cannot reasonably and reliably determine the amount of special rewards and subsidies obtained due to the completion of the task, it shall, after being checked and liquidated by the Ministry of Finance, include them in the current profit or loss, and then offset special payables. Where the pre-allocated special rewards and subsidies is less than the amount estimated to be enjoyed by the Company, the shortfall shall be recognized as other receivables; if the funds are returned to the Ministry of Finance as required due to the failure to complete the relevant tasks, the special payables shall be written off according to the amount of the returned funds.

5. Notes to adjustments for changes in accounting policies and accounting estimates, the correction of previous errors and other adjustment

5.1 Adjustments for changes in accounting policies

5.1.1 Implementation of the documents CK [2019] No. 6 and CK [2019] No. 16

The Ministry of Finance issued the 2019 Circular on Revising and Issuing the Format of Financial Statements of General Enterprises (CK [2019] No. 6) on April 30, 2019 and the Circular on Revising and Issuing the Format of Consolidated Financial Statements (2019 Version) (CK [2019] No. 16) on September 19, 2019, revising the format of financial statements of general enterprises and the format of consolidated financial statements. In addition to the changes in presentation due to the New Standards for Financial Instruments, the New Standards for Revenues and the New Standards for Leases, the foregoing documents revised the balance sheet, the income statement, the statement of cash flows and the statement of changes in owner's equity (or shareholder's equity), dividing "notes receivable and accounts receivable" into "notes receivable" and "accounts receivable", dividing "notes payable and accounts payable" into "notes payable" and "accounts payable", adding "receivables financing" and adding "income from derecognition of financial assets measured at amortized cost" under "investment income", adjusting the presentation position of some items in the income statement. The enterprise adopts the retrospective adjustment method in accordance with relevant regulations, and adjusts the comparative data of comparable accounting periods accordingly.

Main impacts of the said provisions implemented by the Group are as follows:

No.	Items	2018-12-31		
		Before adjustment	Adjusted amount	After adjustment
1	Notes receivable and accounts receivable	50,279,372,568.29	-50,279,372,568.29	
2	Notes receivable		9,014,407,201.05	9,014,407,201.05
3	Accounts		41,264,965,367.24	41,264,965,367.24

No.	Items	2018-12-31		
		Before adjustment	Adjusted amount	After adjustment
	receivable			
4	Notes payable and accounts payable	61,397,899,939.53	-61,397,899,939.53	
5	Notes payable		9,095,481,266.38	9,095,481,266.38
6	Accounts payable		52,302,418,673.15	52,302,418,673.15

5.1.2 Implementation of the New Standards for Financial Instruments

The Ministry of Finance revised the Accounting Standards for Business Enterprises No. 22 - Recognition and Measurement of Financial Instruments, the Accounting Standards for Business Enterprises No. 23 - Transfer of Financial Assets, the Accounting Standards for Business Enterprises No. 24 - Hedge Accounting and the Accounting Standards for Business Enterprises No. 37 - Presentation of Financial Instruments in 2017. According to the revised standards, the financial instruments underrecognized on the first implementation date shall be retroactively adjusted if the previous recognition and measurement are inconsistent with the revised standards. The Company does not need to make adjustments where the data in the comparative financial statements in previous years does not meet the revised standards.

Due to the implementation of the New Standards for Financial Instruments, the Group presented on January 1, 2019 the cumulative amount affected by retrospective adjustments in the adjusted amount of retained earnings and other comprehensive income on January 1, 2019.

The companies within the Group's consolidation scope which implement the New Standards for Financial Instruments on January 1, 2019 for the first time include:

No.	Name	Reason for implementation
1	Shanghai Electric Power Co., Ltd.	A company listed at home
2	State Power Investment Corporation Yuanda Environmental Protection Co., Ltd.	A company listed at home
3	Jilin Electric Power Co., Ltd.	A company listed at home
4	SPIC Dongfang New Energy Corporation	A company listed at home
5	Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia	A company listed at home
6	SPIC Xianrong Futures Co., Ltd.	A company listed on the NEEQ
7	SPIC Guizhou Jinyuan Weining Energy Co., Ltd.	A company listed on the NEEQ
8	China Kangfu International Leasing Co., Ltd.	A company listed on the NEEQ

Based on the balance as at December 31, 2018 as adjusted according to the provisions of CK [2019] No. 6 and CK [2019] No. 16, the main effects of the implementation of the New Standards for Financial Instruments by the above-mentioned enterprises on the consolidated financial statements on January 1, 2019 are as follows:

Item	Book value presented under the original revenue standards as at December 31, 2018	Total impact caused by the implementation of the New Standards for Financial Instruments	Impact caused by the implementation of New Standards for Financial Instruments on the consolidated balance sheet		Book value presented under the New Standards for Financial Instruments
			Reclassification		January 1, 2019
			Aging analysis method changed to migration rate model	Reclassification under the New Standards for Financial Instruments	
Financial assets measured at fair value through current profit or loss	5,469,446,950.21	-2,255,234,410.18		-2,255,234,410.18	3,214,212,540.03
Financial assets held for trading (applicable to the New Standards for Financial Instruments)	5,403,630.54	6,049,884,632.14		6,049,884,632.14	6,055,288,262.68
Notes receivable	9,014,407,201.05	-123,901,507.72		-123,901,507.72	8,890,505,693.33
Accounts receivable	41,264,965,367.24	-1,320,377.95	-1,408,493.19	88,115.24	41,263,644,989.29
Receivables financing (applicable to the New Standards for Financial Instruments)		123,901,507.72		123,901,507.72	123,901,507.72
Other receivables	14,132,111,583.90	-63,277,823.29	-2,225,927.22	-61,051,896.07	14,068,833,760.61
△Financial assets purchased under resale agreements		15,987.63		15,987.63	15,987.63
Contract assets	2,816,419,993.15			-	2,816,419,993.15

Item	Book value presented under the original revenue standards as at December 31, 2018	Total impact caused by the implementation of the New Standards for Financial Instruments	Impact caused by the implementation of New Standards for Financial Instruments on the consolidated balance sheet		Book value presented under the New Standards for Financial Instruments
			Reclassification		January 1, 2019
			Aging analysis method changed to migration rate model	Reclassification under the New Standards for Financial Instruments	
(applicable to the New Standards for Revenues)					
Non-current assets due within one year	13,775,391,069.06	-6,403,048.61		-6,403,048.61	13,768,988,020.45
Other current assets	16,369,634,717.04	-181,802,055.23		-181,802,055.23	16,187,832,661.81
△Disbursement of loans and advances	6,466,631,669.75	2,415,062.15		2,415,062.15	6,469,046,731.90
Creditor's rights investment (applicable to the New Standards for Financial Instruments)	-	2,169,310,392.69		2,169,310,392.69	2,169,310,392.69
Available-for-sale financial assets	17,495,257,158.55	-7,258,178,315.64		-7,258,178,315.64	10,237,078,842.91
Held-to-maturity investments	2,416,559,556.05	-205,084,931.51		-205,084,931.51	2,211,474,624.54
Long-term receivables	41,931,466,616.20	-222,694,337.19		-222,694,337.19	41,708,772,279.01
Other equity instrument investments (applicable to the New Standards for	506,149,441.28	1,532,707,397.96		1,532,707,397.96	2,038,856,839.24

Item	Book value presented under the original revenue standards as at December 31, 2018	Total impact caused by the implementation of the New Standards for Financial Instruments	Impact caused by the implementation of New Standards for Financial Instruments on the consolidated balance sheet		Book value presented under the New Standards for Financial Instruments
			Reclassification		January 1, 2019
			Aging analysis method changed to migration rate model	Reclassification under the New Standards for Financial Instruments	
Financial Instruments)					
Other non-current financial assets (applicable to the New Standards for Financial Instruments)	-	399,681,087.33		399,681,087.33	399,681,087.33
Deferred tax assets	3,182,888,693.32	16,676,138.24	234,203.18	16,441,935.06	3,199,564,831.56
Other non-current assets (other long-term assets)	23,516,257,113.28	-220,000,000.00		-220,000,000.00	23,296,257,113.28
Short-term borrowings	126,018,509,819.44	385,458.33		385,458.33	126,018,895,277.77
△Absorption of deposits and interbank deposit	2,321,452.53	22,493,407.76		22,493,407.76	24,814,860.29
Taxes payable	5,239,146,469.08	-388,825.96		-388,825.96	5,238,757,643.12
Other payables	24,468,713,711.31	-81,139,556.55		-81,139,556.55	24,387,574,154.76
Non-current liabilities maturing within one year	78,202,561,453.16	11,319,973.18		11,319,973.18	78,213,881,426.34
Other current liabilities	53,657,699,165.27	17,334,653.15		17,334,653.15	53,675,033,818.42
Long-term	332,871,769,868.05	17,057,434.53		17,057,434.53	332,888,827,302.58

Item	Book value presented under the original revenue standards as at December 31, 2018	Total impact caused by the implementation of the New Standards for Financial Instruments	Impact caused by the implementation of New Standards for Financial Instruments on the consolidated balance sheet		Book value presented under the New Standards for Financial Instruments
			Reclassification		January 1, 2019
			Aging analysis method changed to migration rate model	Reclassification under the New Standards for Financial Instruments	
borrowings					
Deferred tax liabilities	1,219,809,688.12	-50,397,664.85		-50,397,664.85	1,169,412,023.27
Other non-current liabilities	197,276,455.78	14,661,369.89		14,661,369.89	211,937,825.67
Other comprehensive income	-1,056,311,075.59	205,233,796.14		205,233,796.14	-851,077,279.45
Undistributed profits	4,959,889,423.24	-218,308,419.62	-1,157,657.16	-217,150,762.46	4,741,581,003.62
*Minority equity	158,706,776,566.85	-181,556,227.46	-2,242,560.07	-179,313,667.39	158,525,220,339.39

5.1.3 Implementation of the New Standards for Leasing

The Ministry of Finance revised the Accounting Standards for Business Enterprises No. 21 - Leases in 2018. The enterprises listed at home and abroad at the same time, and the enterprises listed abroad and preparing financial reports in accordance with the International Financial Reporting Standards or Accounting Standards for Business Enterprises implemented the Standards as of January 1, 2019. According to the Standards, for contracts that existed before the first implementation date, the Company chose not to re-evaluate whether it is or includes a lease on the first implementation date.

The companies within the Group's consolidation scope which implement the New Standards for Leases on January 1, 2019 for the first time include:

Name	Reason for implementation
China Power International Development Limited (HK2380)	H-share
SPIC Pacific Energy Pty Ltd	Overseas subsidiary
SPIC Brazil Energia Participaçoes S.A.	Overseas subsidiary

The above companies chose to adjust the amount of retained earnings at the beginning of the year when the New Standards for Leases were first implemented and other related items in the financial statements based on the cumulative amount affected by the first implementation of the New Standards for Leases, without adjusting the information for the comparable period.

For operating leases that existed prior to the first implementation date, the Company measured the lease liabilities at the present value discounted based on the remaining lease payments at the Company’s incremental borrowing rate on the first implementation date, and measured the right-of-use assets in two ways as follows:

Assuming that the book value of the New Standards for Leases is adopted as of the commencement of the lease term, the incremental borrowing rate of the Company on the first implementation date is used as the discount rate.

The right-of-use assets are measured at an amount equal to the lease liabilities and adjusted according to the prepaid rent. The above companies use this method for all other leases.

For operating leases before the first implementation date, the above companies can choose one or more of the following simplified methods according to each lease while applying the above methods:

1) The leases that will be completed within 12 months after the first implementation date are treated as short-term leases;

2) Leases with similar characteristics are subject to the same discount rate when the Company measures lease liabilities;

3) The measurement of the right-of-use assets does not include the initial direct cost;

4) Where there is an option for lease renewal or termination, the lease term shall be determined according to the actual exercise of the option before the first implementation date and other latest conditions;

5) As an alternative to the impairment test of the right-of-use assets, a lessee may assess whether the contract containing the lease is a loss contract before the first implementation date pursuant to the Accounting Standards for Business Enterprises No. 13 - Contingencies, and adjust the right-of-use assets on the basis of the reserves for losses included in the balance sheet before the first implementation date;

6) In the event of lease change before the beginning of the year when the New Standards for Leases are implemented for the first time, the lessee is not required to make retroactive adjustment, but shall conduct accounting treatment pursuant to the New Standards for Leases on the basis of the ultimate arrangements for the lease change.

When measuring lease liabilities, the above companies use the lessee's incremental borrowing rate on January 1, 2019 to discount the lease payments.

For financial leases that existed prior to the first implementation date, the Company measures the right-of-use assets and lease liabilities separately on the basis of the original book value of the assets acquired under finance leases and financial lease payments payable on the first implementation date.

The main effects of the above companies' implementation of the New Standards for Leases on the financial statements are as follows:

Contents of and reasons for adjustments for changes in accounting policies	Name and amount of the affected items in the financial statements
(1) Adjustments made by the Company as the lessee to the operating leases that existed before the first implementation date	Right-of-use assets increased by RMB 1,188,003,261.08 Lease liabilities increased by RMB 1,012,144,616.48 Long-term deferred expenses reduced by RMB 83,045,862.16 Non-current liabilities maturing within one year increased by RMB 86,247,984.56 Construction in progress reduced by RMB 650,000.00 Advances to suppliers reduced by RMB 1,637,017.74 Other current assets decreased by RMB 4,277,780.14
(2) Adjustments made by the Company as the lessee to the finance leases that existed before the first implementation date	Right-of-use assets increased by RMB 4,050,634,469.78 Fixed assets decreased by RMB 4,050,634,469.78 Lease liabilities increased by RMB 3,673,980,705.88 Long-term payables reduced by RMB 4,447,230,486.40 Non-current liabilities due within one year increased by RMB 773,249,780.52

5.1.4 Implementation of the Standards for Exchange of Nonmonetary Assets (2019)

On May 9, 2019, the Ministry of Finance issued the Circular on Issuing the Revised Accounting Standards for Business Enterprises No. 7 - Exchange of Non-monetary Assets (CK [2019] No. 8), detailing the applicable scope of the Standards for Exchange of Non-monetary Assets, clarifying the timing for recognizing assets received and that for derecognizing assets surrendered, specifying the accounting treatment method when the two timings are inconsistent, revising the measurement principle when multiple assets are received or surrendered at the same time during the exchange of non-monetary assets measured at fair value, and adding new disclosure requirements for whether the exchange of non-monetary assets has commercial substance and the reasons thereof.

The revised Standards for Exchange of Nonmonetary Assets were implemented as of

June 10, 2019. The exchanges of non-monetary assets that occurred between January 1, 2019 and the implementation date of these Standards shall be adjusted in accordance with these Standards. For the exchanges of non-monetary assets that occurred before January 1, 2019, no retroactive adjustments are required in accordance with these Standards.

The implementation of the above standards by the Group has no significant impact during the reporting period.

5.1.5 Implementation of the Standards for Debt Restructuring (2019)

On May 16, 2019, the Ministry of Finance issued the Circular on Issuing the Revised Accounting Standards for Business Enterprises No. 12 - Debt Restructuring (CK [2019] No. 9), amending the definition of debt restructuring, clarifying the applicable scope of these Standards, and stipulating that the recognition, measurement and presentation of financial instruments involved in debt restructuring is applicable to the relevant Standards for Financial Instruments. Where debt restructuring is performed by using assets to repay the debt, the measurement principles of the creditor for initially recognizing received non-financial assets shall be revised and the profit or loss from assets transfer shall be no longer distinguished with profit or loss from debt restructuring when the debtor's profit or loss from debt restructuring is presented. Where debt restructuring is performed by transforming debt into equity instruments, the measurement principles of the creditor for initially recognizing shares are revised, and guidelines are added to the measurement principles of debtors for initially recognizing equity instruments.

The revised Standards for Debt Restructuring were implemented as of June 17, 2019. The debt restructuring that occurred between January 1, 2019 and the implementation date of these Standards shall be adjusted in accordance with these Standards. For the debt restructuring that occurred before January 1, 2019, no retroactive adjustments are required in accordance with these Standards.

The implementation of the above standards by the Group has no significant impact during the reporting period.

5.1.6 Subsequent measurement of investment properties changed from the cost model to the fair value model

As deliberated at the 27th meeting of the first board of directors of SPIC, the subsequent measurement of investment properties of the enterprises affiliated to the Group Company changed from the cost model to the fair value model as of January 1, 2019. According to the Accounting Standards for Business Enterprises No. 3 - Investment Properties, the Accounting Standards for Business Enterprises No. 28 - Changes in Accounting Policies, Accounting Estimates and Corrections of Errors, the Group Company shall treat it as changes in accounting policies, retroactively adjust the beginning amount of the financial statements, and adjust the beginning retained earnings at the difference between the fair value and the book value when the measurement model changes.

The impacts on the financial statements are listed as follows: having increased the beginning investment properties by RMB 511,066,925.04, the beginning deferred income tax assets by RMB 36,284,072.72, the beginning deferred income tax liabilities by RMB 82,080,011.18, the beginning undistributed profits by RMB 342,331,598.52, and the beginning minority interest by RMB 119,279,410.34, of which Shanghai Electric Power Co., Ltd., State Power Investment Corporation Yuanda Environmental Protection Co., Ltd. and SPIC Dongfang New Energy Corporation have increased the net profit attributable to the parent company by RMB 1,613,676.34 last year and last year's minority interest by RMB 2,820,933.62.

5.1.7 Change in recording currency of overseas subsidiary Turkish EMBA

Shanghai Electric Power Co., Ltd., a subsidiary of the Group, invested in EMBA in Turkey. In recent years, the Turkish lira exchange rate has fluctuated violently, which has caused negative effects on the normal operation of Turkish EMBA. Therefore, Turkish EMBA gradually denominated or settled important financing, investment, procurement and other activities in USD. In order to more objectively and fairly reflect the financial position and operating results of Turkish EMBA, the recording currency has been changed from the Turkish lira to the US dollar since May 1, 2019. The above changes have been approved by the 7th interim board meeting in 2019.

According to these Standards, the prospective application method shall be adopted for treating the changes in accounting policies, which has no impact on the financial position and operating results of previous years.

5.2 Adjustment for changes in accounting estimates

5.2.1 Recognition principle of timing applicable to changes in accounting estimates

As deliberated by the 27th meeting of the first board of directors of SPIC, as of January 1, 2019, the depreciation period of power generation and heating equipment of the enterprises affiliated to the Group Company will be adjusted from 12-20 years to 20 years for power generation and heating equipment with thermal power, wind power and solar energy and to 18 years for that with hydropower. As required by the Group Company's documents, the depreciation period of fixed assets shall be changed accordingly as of January 1, 2019.

5.2.2 Changes in the Group's significant accounting estimates as follows:

Contents of and reasons for changes in accounting estimates	Examination and approval process	Name of the affected items in the statements	Starting time point of application	Amount affected
Changes in the depreciation period of power generation and heating equipment	Resolution of the Group Company's board of directors	Accumulated depreciation	January 1, 2019	-1,318,628,165.15
		Operating cost		-1,318,628,165.15
		Total profit		1,318,628,165.15
		Net profit		1,002,042,622.53

5.3 Corrections of significant prior errors

(1) Beijing Electric Power Co., Ltd., a subsidiary of the Company, paid the land use tax of the previous years as requires by local taxation authorities, the beginning taxes and surcharges payable increased by RMB 14,648,863.98, the beginning undistributed profits reduced by RMB 7,617,409.27, and reduced the beginning minority equity by RMB 7,031,454.71, of which the net profit attributable to the parent company of the previous year reduced by RMB 2,539,136.42, and the minority interest of the previous year reduced by RMB 2,343,818.24.

(2) Actively driven by top officials from China and Myanmar, overseas projects have made certain progress. In order to truly and completely reflect the total investment cost of overseas projects, with the consent of the Ministry of Electricity and Energy of Myanmar and the approval of the Company's subsidiary Yunnan International after the deliberation at the 11th meeting of the Party Committee in 2019, the project-related expensed interest expenses incurred in 2016-2018 were corrected based on previous accounting errors: the beginning other non-current assets increased by RMB 398,843,968.42 and the beginning undistributed profits by RMB 398,843,968.42.

(3) Yunnan International Power Investment Co., Ltd., a subsidiary of the Company, signed agreements with the Ministry of Electricity and Energy of Myanmar with respect to two

BOT projects, namely the Chipwi Nge Hydropower Station, primarily completed in 2014, and the Myitsone Hydropower Station on the upper reaches of the Ayeyarwady River. However, according to the agreement signed between China and Myanmar, the commercial operation day is the date after the actual annual income from electricity sales reaches the break-even point and the commercial operation is officially approved by MOEP; the period before the commercial operation day is the trial operation period. As at December 31, 2019, the project has not yet achieved a break-even, failed to meet the conditions for the commercial operation day agreed by the two parties and has not been handed over to Myanmar.

The Myitsone Hydropower Station on the upper reaches of the Ayeyarwady River has been idle since September 30, 2011. As at December 31, 2019, the project is proceeding in an orderly manner.

The above two projects have not been completed yet, so they continue to incur construction costs; they have not reached the conditions for handover and cannot form right-of-use assets, so the conditions for recognizing intangible assets are not met. The beginning construction in progress is adjusted to increase by RMB 5,956,966,068.55 and the beginning intangible assets are adjusted to reduce by RMB 5,956,966,068.55.

(4) The Company's subsidiary Guizhou Jinyuan Co., Ltd. transferred physical assets in April 2018 without accounting treatment, so the beginning inventories were adjusted to reduce by RMB 615,649.17, the beginning fixed assets by RMB 10,944,374.13, the beginning other payables by RMB 2,183,250.83, the beginning undistributed profits by RMB 2,542,156.04, and the beginning minority equity by RMB 6,218,967.26, of which the net profit attributable to the parent company of last year reduced by RMB 2,542,156.04, and the minority interest of last year by RMB 6,218,967.26.

(5) The Company's subsidiary Dongfang New Energy Corporation included structured entities in the consolidation scope in 2019, so the beginning current assets were adjusted to increase by RMB 1,482,867,735.33, the beginning non-current assets reduce by RMB 1,590,930,812.15, the beginning current liabilities reduce by RMB 322,877,527.52, the beginning non-current liabilities reduce by RMB 97,785,874.42, the beginning equity attributable to the parent company’s owners was adjusted to increase by RMB 81,984,387.20 and the beginning minority equity was adjusted to increase by RMB 230,615,937.92, of which the total comprehensive income attributable to the parent company’s owners of last year was adjusted to increase by RMB 35,850,546.13 and the total comprehensive income attributable to minority shareholders of last year was adjusted to increase by RMB 227,399,657.64.

(6) Due to changes in minority shareholders in the Company's consolidated statements, the beginning undistributed profits reduced by RMB 593,861,896.43, and the beginning minority equity increased by RMB 593,861,896.43.

5.4 Adjustment to other matters

None.

5.5 The adjustments above have the following influence on the amount as at January 1, 2019 and that as at December 31, 2018:

Items	Amount as at December 31, 2018 (Amount as at December 31, 2018 before adjustment)	Amount as at January 1, 2019 (Amount as at December 31, 2018 after adjustment)	Adjustments to affected amount		
			Total	Changes in accounting policies	Corrections of accounting errors
Total assets	1,080,301,467,247.08	1,081,971,404,423.10	1,669,937,176.02	1,398,779,019.62	271,158,156.40
Total liabilities	847,451,070,767.01	848,176,466,264.81	725,395,497.80	1,131,798,861.70	-406,403,363.90
Total equity attributable to owners of the parent company	74,143,619,913.22	74,321,467,641.52	177,847,728.30	329,256,975.03	-151,409,246.73
Including: paid-in capital	35,000,000,000.00	35,000,000,000.00			
Other equity instruments	27,844,116,792.42	27,844,116,792.42			
Capital reserves	7,231,316,695.61	7,280,829,950.00	49,513,254.39		49,513,254.39
Other comprehensive income	-1,056,311,075.59	-858,628,312.05	197,682,763.54	205,233,796.14	-7,551,032.60
Special reserves	164,608,077.54	164,608,077.54			
Surplus reserves					
General risk reserve					
Undistributed profits	4,959,889,423.24	4,890,541,133.61	-69,348,289.63	124,023,178.89	-193,371,468.52
Others					
Minority equity	158,706,776,566.85	159,473,470,516.77	766,693,949.92	-62,276,817.11	828,970,767.03
Total operating income	226,415,276,963.15	226,501,147,148.64	85,870,185.49		85,870,185.49
Total profit	10,847,711,369.90	11,104,782,927.27	257,071,557.37	5,872,470.45	251,199,086.92
Net profit attributable to owners of the parent company	1,129,138,645.86	1,169,072,608.48	39,933,962.62	1,613,676.34	38,320,286.28
Minority interest	5,613,856,918.14	5,840,678,007.85	226,821,089.71	2,820,933.62	224,000,156.09

6. Taxation

6.1 Major tax types and tax rates

Tax type	Basis of tax assessment	Applicable tax rate (%)
Value-added tax (VAT)	Value-added tax payable shall be the difference obtained by the output taxes calculated based on the revenue from the sale of goods and taxable services as computed by tax laws less the input taxes allowed to be deducted for the current period	3, 6, 9, 10, 13, 16
Urban maintenance and construction tax	Paid on the basis of the actual VAT and consumption tax paid	1, 5, 7
Enterprise income tax	Calculated and paid at taxable income	15, 25
Land value-added tax	Calculated and paid on the basis of the added value and specified tax rate obtained from real estate transfer	
Property tax	Levied according to the tax residual value of the house * (1 - deduction rate) or rental income	1.2, 12

Note: The Company's VAT taxable sales are originally applicable to 16% and 10%. According to the Announcement of the Ministry of Finance, the State Taxation Administration and the General Administration of Customs on Relevant Policies for Deepening Value-Added Tax Reform (CS [2019] No. 39), their applicable rate was adjusted to 13% and 9%, effective as of April 1, 2019.

6.2 Tax preference

6.2.1 Preferential policies for VAT

(1) According to the Announcement on Relevant Policies for Deepening Value-Added Tax Reform (hereinafter referred to as the "Announcement"), with respect to VAT taxable sales or imported goods of the Company, where the VAT rate of 16% and 10% applies currently, it shall be adjusted to 13% and 9% respectively as of April 1, 2019. From April 1, 2019 to December 31, 2021, taxpayers of manufacturing and living service industries shall be allowed to add an extra 10% based on the offsettable input VAT for the current period for deduction of the tax payable (hereinafter referred to as the "additional deduction policy").

(2) According to the Circular of the Ministry of Finance and the State Administration of Taxation on Issues Concerning VAT, Business Tax and Enterprise Income Tax Policies for the Promotion of the Development of the Energy-Conservation Service Industry (CSF [2010] No. 110), the taxable income earned by some subsidiaries of the Company for implementing energy management contract projects shall be temporarily exempted from VAT, related urban maintenance and construction tax, educational surtax, and local educational surtax.

(3) According to the Circular of the State Administration of Taxation and the Ministry of Finance on Issuing the Catalogue of Preferential Value-added Tax Policies for Products and Labor Services Generated from the Comprehensive Utilization of Resources (CS [2015] No. 78), the Company produced cement (whose raw materials are mixed with waste residue, including cement clinker, in the proportion of not less than 20% for P.O42.5 cement and not less than 40% for P.C32.5) with the rotary kiln process, so it was entitled under the policy to claim VAT refunds immediately after payment. SPIC Guizhou Jinyuan Suiyang Industrial Co., Ltd., a subsidiary of the Company, had some products that implement the above-mentioned preferential tax policies.

(4) According to the Circular on Renewing Preferential Policies on Value-added Tax,

Real Estate Tax and Urban Land Use Tax for Heat Supply Enterprises (CS [2019] No. 38) promulgated by the Ministry of Finance and the State Taxation Administration, the heating cost income of heat supply enterprises collected from supplying heat for resident individuals shall be exempt from VAT from January 1, 2019 to the end of the heating period in 2020. Some subsidiaries of the Company enjoyed this preferential policy.

6.2.2 Preferential policies for enterprise income tax

(1) According to Article 27 of the Enterprise Income Tax Law of the People's Republic of China and Article 87 of its Implementation Regulations, the Circular of the State Administration of Taxation on Issues Concerning the Implementation of the Catalogue of Public Infrastructure Projects Enjoying Enterprise Income Tax Preference (CS [2008] No. 46), (CS [2008] No. 116), the Circular on Issues Concerning the Implementation of Enterprise Income Tax Incentives on Infrastructure Project Enterprises Which Are Supported by the State (GSF [2009] No. 80), the income from investment and operation of the project stipulated in the Catalogue of Public Infrastructure Projects Enjoying Enterprise Income Tax Preference, namely solar power generation, shall be exempt from enterprise income tax from the first year to the third year from the tax year in which the first production and operation income is obtained, and shall be levied by half from the fourth year to the sixth year.

(2) According to the Circular of the Ministry of Finance, the General Administration of Customs and the State Administration of Taxation on Issues concerning Tax Policies for In-depth Implementation of Western Development Strategies (CS [2011] No. 58), from January 1, 2011 to December 31, 2020, the enterprise income tax on enterprises established in western areas and engaging in industries encouraged by the State is levied at a reduced tax rate of 15%.

The time for each subsidiary of the Company to enjoy preferential tax policies is as follows:

No.	Name	Level	Preferential tax policies	Tax rate in 2019
1	Nong'an Xinsheng New Energy Co., Ltd.	3	Public infrastructure projects	Exempted
2	Songyuan Lvzhu Photovoltaic Power Generation Co., Ltd.	3	Public infrastructure projects	Exempted
3	Changchun Longfa New Energy Co., Ltd.	3	Public infrastructure projects	Exempted
4	Tailai CP Shuangxing Photovoltaic Power Generation Co., Ltd.	3	Public infrastructure projects	Exempted
5	CLP Tailai Photovoltaic Power Generation Co., Ltd.	3	Public infrastructure projects	Exempted
6	Daqing Huaguang Solar Energy Power Generation Co., Ltd.	3	Public infrastructure projects	Exempted
7	Daqing Lvrui Solar Energy Power Generation Co., Ltd.	3	Public infrastructure projects	Exempted
8	Anda Tongke New Energy Co., Ltd.	3	Public infrastructure projects	Exempted
9	Tailai Haoxin Photovoltaic Power	3	Public infrastructure projects	Exempted

No.	Name	Level	Preferential tax policies	Tax rate in 2019
	Generation Co., Ltd.			
10	Zhaozhou Jingrui New Energy Technology Co., Ltd.	3	Public infrastructure projects	Exempted
11	Nong'an Xinhe Energy Investment Co., Ltd.	3	Public infrastructure projects	Exempted
12	Suichang Jinghe New Energy Technology Co., Ltd.	3	Public infrastructure projects	Exempted
13	Quzhou Qujiang Hehe New Energy Technology Co., Ltd.	3	Public infrastructure projects	Exempted
14	Guizhou Anshun Zhongshui Hydropower Development Co., Ltd.	4	Western development	15.00%
15	Fenggang Lianxing Hydropower Development Co., Ltd.	4	Western development	15.00%
16	Qiandongnan Fengyuan Industrial Co., Ltd.	4	Western development	15.00%
17	Tongren Tianshengqiao Power Generation Co., Ltd.	4	Western development	15.00%
18	Guizhou Mengjiang River Basin Development Co., Ltd.	4	Western development	15.00%
19	Guizhou Qiannan Zhongshui Hydropower Development Co., Ltd.	4	Western development	15.00%
20	Guizhou Nengfa New Energy Development Co., Ltd.	4	Western development	15.00%
21	Guizhou Jinyuan Tea Plantation Power Generation Co., Ltd.	4	Western development	15.00%
22	Guizhou Jinsha Nengfa New Energy Development Co., Ltd.	5	Western development	15.00%
23	Guizhou Jinyuan Qianxi Power Generation Co., Ltd.	5	Western development	15.00%
24	SPIC Guizhou Jinyuan Weining Energy Co., Ltd. Pingqing Project	3	Public infrastructure projects	12.50%
25	SPIC Guizhou Jinyuan Weining Energy Co., Ltd. Yaozhan Project	3	Public infrastructure projects	12.50%
26	SPIC Guizhou Jinyuan Weining Energy Co., Ltd. Xiaoguanshan Project	3	Public infrastructure projects	Exempted

No.	Name	Level	Preferential tax policies	Tax rate in 2019
27	SPIC Guizhou Jinyuan Weining Energy Co., Ltd. Zhongliangzi Project	3	Public infrastructure projects	Exempted
28	SPIC Guizhou Jinyuan Weining Energy Co., Ltd. Xiangbiling Hydropower Station Photovoltaic Phase I Project	3	Public infrastructure projects	Exempted
29	SPIC Guizhou Jinyuan Weining Energy Co., Ltd. Xiangbiling Hydropower Station Photovoltaic Phase II Project	3	Public infrastructure projects	Exempted
30	Hezhang Jinggong Energy Poverty Alleviation Development Co., Ltd. Wenyuan Phase I Project	4	Public infrastructure projects	Exempted
31	Guigang Guanghe New Energy Power Generation Co., Ltd. Photovoltaic Phase I Project	4	Public infrastructure projects	Exempted
32	Zhenfeng Xingyuan Photovoltaic Technology Co., Ltd. Zhenfeng Xiabuke Project	4	Public infrastructure projects	Exempted
33	Xingyi Jinfeng New Energy Co., Ltd. Nanxing Rooftop Photovoltaic Project	4	Public infrastructure projects	Exempted
34	Ceheng Concord Wind Power Co., Ltd. Dadingzhu Wind Power Project	5	Public infrastructure projects	Exempted
35	CPI Guizhou Jinyuan Group Yunnan Huize New Energy Co., Ltd. Dike Photovoltaic Project	4	Public infrastructure projects	Exempted
38	Haixing Dongfang New Energy Power Generation Co., Ltd.	3	Public infrastructure projects	Exempted
39	SPIC Xuanhua New Energy Power Generation Co., Ltd. - Xuanhua Phase II Wind Power	3	Public infrastructure projects	Exempted
40	CLP Guyuan New	3	Public infrastructure	Exempted

No.	Name	Level	Preferential tax policies	Tax rate in 2019
	Energy Power Generation Co., Ltd. - Phase II Photovoltaic		projects	
41	SPIC Xingtai New Energy Power Generation Co., Ltd.	3	Public infrastructure projects	12.50%
42	CLP Xuanhua New Energy Power Generation Co., Ltd. (Xuanhua Phase I Photovoltaic, Xuanhua Phase II Photovoltaic, Phase I Wind Power, Longdongshan Phase I Photovoltaic and Longdongshan Phase II Photovoltaic)	3	Public infrastructure projects	12.50%
43	CLP Guyuan New Energy Power Generation Co., Ltd. - Phase I Photovoltaic	3	Public infrastructure projects	12.50%
44	SPIC Pingquan New Energy Power Generation Co., Ltd.	3	Public infrastructure projects	12.50%
45	SPIC Quyang New Energy Power Generation Co., Ltd.	3	Public infrastructure projects	12.50%
46	SPIC Fuping New Energy Power Generation Co., Ltd.	3	Public infrastructure projects	12.50%
48	SPIC Xi'an Solar Power Co., Ltd.	3	Western development	15%
49	Yan'an Zichang New Energy Development Co., Ltd.	5	Western development	15%
50	Yan'an Energy Development Co., Ltd.	5	Western development	15%
51	Ningxia Huanghe Hydropower Qingtongxia Power Generation Co., Ltd.	4	Western development	15%
52	Ningxia Huanghe Hydropower Zhongning Solar Power Generation Co., Ltd.	3	Western development	15%
53	Qinghai Huanghe Hydropower Development Co. Ltd.	3	Western development	15%
54	Qinghai Huanghe Medium-sized Hydropower Development Co., Ltd.	3	Western development	15%
55	Qinghai Datonghe	4	Western	15%

No.	Name	Level	Preferential tax policies	Tax rate in 2019
	Hydropower Development Co., Ltd.		development	
56	Qinghai Huanghe Medium-sized Hydropower Development Co., Ltd. Delingha New Energy Branch	3	Western development	15%
57	Qinghai Huanghe Hydropower Co., Ltd. Wulan Solar Power Generation Branch	3	Western development	15%
58	Qinghai Huanghe Hydropower Development Co. Ltd. Henan Solar Power Generation Branch	3	Western development	15%
59	Qinghai Huanghe Hydropower Development Co. Ltd. Gonghe Solar Power Generation Branch	3	Western development	15%
60	Huanghe Hydropower Xining Solar Power Co., Ltd.	3	Western development	15%
61	Qinghai Huanghe Hydropower Development Co. Ltd. Golmud Solar Power Generation Branch Phase I to Phase II	3	Western development	15%
62	Hanzhong Huanghe Medium-sized Hydropower Development Co., Ltd.	3	Western development	15%
63	Qinghai Huanghe Hydropower Development Co. Ltd. Gonghe Wind Power Generation Branch (hereinafter referred to as "Gonghe Wind Power Generation Branch") No. 1 Squadron	3	Public infrastructure projects	Exempted
64	Gonghe Wind Power Generation Branch Dunqu	4	Public infrastructure projects	Exempted
65	Gonghe Wind Power Generation Branch Gonghe 200MW	4	Public infrastructure projects	Exempted
66	Gonghe Wind Power Generation Branch Gonghe 450MW	4	Public infrastructure projects	Exempted

No.	Name	Level	Preferential tax policies	Tax rate in 2019
67	Gonghe Wind Power Generation Branch Gonghe 400MW	4	Public infrastructure projects	Exempted
68	Huanghe Hydropower Gonghe Solar Power Generation Co., Ltd. Chenyang Gonghe Solar Power Generation Co., Ltd. Tongli Photovoltaic	4	Public infrastructure projects	Exempted
69	Huanghe Hydropower Gonghe Solar Power Generation Co., Ltd. Phase VI	4	Public infrastructure projects	Exempted
71	Qinghai Huanghe Hydropower Development Co. Ltd. Photovoltaic Industry Technology Branch Yongyuan Gonghe Phase I 20 MW Energy Storage Photovoltaic Power Station	3	Public infrastructure projects	Exempted
72	Qinghai Huanghe Hydropower Development Co. Ltd. Wulan Wind Power Generation Branch	3	Public infrastructure projects	Exempted
73	Qinghai Huanghe Medium-sized Hydropower Development Co., Ltd. Golmud New Energy Branch Dagele North Wind Farm	3	Public infrastructure projects	Exempted
74	Qinghai Huanghe Medium-sized Hydropower Development Co., Ltd. Gonghe New Energy Branch Gonghe Phase II 15MW	3	Public infrastructure projects	Exempted
75	Qinghai Huanghe Medium-sized Hydropower Development Co., Ltd. Wulan New Energy Branch	3	Public infrastructure projects	Exempted
76	Yulin Huanghe Energy Co., Ltd.	4	Public infrastructure projects	Exempted
77	Huanghe Hydropower Dingbian New Energy Co., Ltd.	4	Public infrastructure projects	Exempted

No.	Name	Level	Preferential tax policies	Tax rate in 2019
78	SPIC Baoji New Energy Co., Ltd.	5	Public infrastructure projects	Exempted
79	SPIC Qianyang New Energy Co., Ltd.	5	Public infrastructure projects	Exempted
80	Hancheng Sunshine Yipin New Energy Technology Co., Ltd.	5	Public infrastructure projects	Exempted
81	Yan'an Baota New Energy Development Co., Ltd.	5	Public infrastructure projects	Exempted
82	Xi'an Jianxi New Energy Technology Co., Ltd.	5	Public infrastructure projects	Exempted
83	Qinghai Huanghe Hydropower Development Co. Ltd. Laxiwa Solar Power Generation Branch	3	Western development and public infrastructure projects	7.50%
84	Qinghai Huanghe Hydropower Development Co. Ltd. Gongboxia Solar Power Generation Branch	3	Western development and public infrastructure projects	7.50%
85	Qinghai Huanghe Hydropower Development Co. Ltd. Gonghe Wind Power Branch Chaka Phase II	3	Western development and public infrastructure projects	7.50%
86	Huanghe Hydropower Gonghe Solar Power Generation Co., Ltd. Phase I to Phase III	4	Western development and public infrastructure projects	7.50%
87	Huanghe Hydropower Longyangxia Hydro-Solar Power Generation Co., Ltd. Phase I to Phase II	4	Western development and public infrastructure projects	7.50%
89	Qinghai Huanghe Hydropower Development Co. Ltd. Photovoltaic Industry Technology Branch Gonghe Experimental Phase I 100 MW Photovoltaic Power Station	3	Western development and public infrastructure projects	7.50%
90	Qinghai Huanghe Hydropower Development Co. Ltd. Yangqu Solar Power Generation Branch	3	Western development and public infrastructure projects	7.50%
91	Qinghai Huanghe Medium-sized	3	Western development and	7.50%

No.	Name	Level	Preferential tax policies	Tax rate in 2019
	Hydropower Development Co., Ltd. Golmud New Energy Branch (hereinafter referred to as "Medium-sized Golmud New Energy Branch") Dagele Phase I (Dagele) 49.5 MW Wind Farm		public infrastructure projects	
94	Qinghai Huanghe Medium-sized Hydropower Development Co., Ltd. Gonghe New Energy Branch Gonghe Phase I 50MW Photovoltaic Power Station	3	Western development and public infrastructure projects	7.50%
95	Jingbian Huanghe Energy Co., Ltd. Lijialiang Phase II and Baitianci Phase I	3	Public infrastructure projects	12.50%
96	Gansu SPIC New Energy Power Generation Co., Ltd.	3	Public infrastructure projects	12.50%
97	Gansu SPIC New Energy Power Generation Co., Ltd. Huining Wind Power Branch	3	Public infrastructure projects	12.50%
98	Gansu SPIC New Energy Power Generation Co., Ltd. Jingtai Solar Power Generation Branch (Phase II)	3	Public infrastructure projects	12.50%
99	Gansu SPIC New Energy Power Generation Co., Ltd. Jingtai Wind Power Generation Branch	3	Public infrastructure projects	12.50%
100	Gansu SPIC New Energy Power Generation Co., Ltd. Wuwei Solar Power Generation Branch	3	Public infrastructure projects	12.50%
101	Gansu SPIC New Energy Power Generation Co., Ltd. Linze Solar Power Generation Branch	3	Public infrastructure projects	12.50%
102	Huanghe Hydropower Photovoltaic Industry Technology Co., Ltd.	3	High-tech	15%

No.	Name	Level	Preferential tax policies	Tax rate in 2019
103	Anhui Jidian New Energy Co., Ltd. Xinsheng Distributed 2mwp Photovoltaic Project	4	Public infrastructure projects	12.50%
104	Anhui Jidian New Energy Co., Ltd. Xinsheng 1 # 2 # Factory Rooftop Solar Photovoltaic Project	4	Public infrastructure projects	12.50%
105	Anhui Jidian New Energy Co., Ltd. Anhui Hefei Xinsheng Distributed Photovoltaic Power Station Project	4	Public infrastructure projects	12.50%
106	Tianjin Yanghong Photovoltaic Power Generation Co., Ltd. Anhui Xinhao Distributed Photovoltaic Power Station Project	5	Public infrastructure projects	12.50%
107	Tianjin Yangdong New Energy Power Generation Technology Co., Ltd.	6	Public infrastructure projects	12.50%
108	Changfeng Jidian New Energy Co., Ltd.	5	Public infrastructure projects	Exempted
109	Jidian (Chuzhou) Zhangguang Wind Power Generation Co., Ltd.	5	Public infrastructure projects	12.50%
110	Huixian Jidian New Energy Co., Ltd.	5	Public infrastructure projects	Exempted
111	Jidian Dingzhou New Energy Technology Co., Ltd.	5	Public infrastructure projects	Exempted
112	Shanghai Jidian Jineng New Energy Co., Ltd.	5	Public infrastructure projects	Exempted
113	Zhangbei Nenghuan New Energy Co., Ltd.	6	Public infrastructure projects	Exempted
114	Renhua Jinze New Energy Power Generation Co., Ltd.	6	Public infrastructure projects	Exempted
115	Yujiang Xinyang New Energy Co., Ltd.	6	Public infrastructure projects	Exempted
116	Wannian Shangcheng New Energy Power Generation Co., Ltd.	5	Public infrastructure projects	Exempted
117	Huainan Panyang Photovoltaic Power Generation Co., Ltd.	5	Public infrastructure projects	Exempted
118	Laian Jidian New	5	Public infrastructure	Exempted

No.	Name	Level	Preferential tax policies	Tax rate in 2019
	Energy Co., Ltd.		projects	
119	Huangshan Jidian New Energy Co., Ltd.	5	Public infrastructure projects	Exempted
120	Anyang Chaohui New Energy Co., Ltd.	5	Public infrastructure projects	Exempted
121	Pizhou Shoukong Photovoltaic Technology Development Co., Ltd.	5	Public infrastructure projects	Exempted
122	Xinyi Suxin New Energy Co., Ltd.	5	Public infrastructure projects	Exempted
123	Beijing Jineng New Energy Technology Co., Ltd.	5	Public infrastructure projects	12.50%
124	Zhangpu Sunshine Puzhao New Energy Power Generation Co., Ltd.	6	Public infrastructure projects	Exempted
125	Yunnan Fengsheng Electric Power Co., Ltd.	5	Public infrastructure projects	12.50%
126	Da'an Jidian New Energy Co., Ltd.	4	Public infrastructure projects	Exempted
127	Zhenlai Jidian New Energy Co., Ltd.	4	Public infrastructure projects	Exempted
128	Changling SPIC No. 1 Wind Power Co., Ltd.	6	Public infrastructure projects	12.50%
129	Changling SPIC No. 2 Wind Power Co., Ltd.	6	Public infrastructure projects	12.50%
130	Changling Shijing New Energy Co., Ltd.	5	Public infrastructure projects	Exempted
131	Qianguo Fubon Energy Technology Service Co., Ltd.	6	Public infrastructure projects	Exempted
132	Fuyu Jirui Wind Energy Co., Ltd.	5	Public infrastructure projects	12.50%
133	Fuyu Fuhui Wind Energy Co., Ltd.	5	Public infrastructure projects	12.50%
134	Fuyu Chengrui Wind Energy Co., Ltd.	5	Public infrastructure projects	12.50%
135	Fuyu Jicheng Wind Energy Co., Ltd.	5	Public infrastructure projects	12.50%
136	Shouguang Jidian Jinghua New Energy Co., Ltd.	4	Public infrastructure projects	Exempted
137	Shouguang Jingshiqian Solar Power Co., Ltd.	5	Public infrastructure projects	Exempted
138	Weifang Xuri New Energy Technology Co., Ltd.	5	Public infrastructure projects	Exempted
139	Songyuan Shangyuan New Energy Co., Ltd.	4	Public infrastructure projects	Exempted
140	Jiangxi SPIC New	4	Public infrastructure	12.50%

No.	Name	Level	Preferential tax policies	Tax rate in 2019
	Energy Power Generation Co., Ltd. Pingshan Wind Farm Project		projects	
141	Jiangzhou SPIC New Energy Power Generation Co., Ltd. Jiangzhou Wind Farm Project	4	Public infrastructure projects	Exempted
142	Lushan Jidian New Energy Power Generation Co., Ltd.	5	Public infrastructure projects	Exempted
143	Linyi Nuooubo New Energy Co., Ltd.	5	Public infrastructure projects	Exempted
144	Nanchang Zhongyang New Energy Co., Ltd.	4	Public infrastructure projects	Exempted
145	Qingzhou Honghui New Energy Technology Co., Ltd.	5	Public infrastructure projects	Exempted
146	Changle Hongguang New Energy Technology Co., Ltd.	5	Public infrastructure projects	Exempted
147	Changle Xinghong New Energy Technology Co., Ltd.	5	Public infrastructure projects	Exempted
148	Shouguang Honghai Electric Power Co., Ltd.	6	Public infrastructure projects	Exempted
149	Qinghai Juhong New Energy Co., Ltd.	5	Public infrastructure projects	Exempted
150	Hami Yuancheng Electric Power Investment Co., Ltd.	5	Public infrastructure projects	12.50%
151	Shaanxi Dingbian Solar Power Generation Co., Ltd.	5	Public infrastructure projects	12.50%
152	Gansu SPIC Jineng New Energy Co., Ltd.	5	Public infrastructure projects	12.50%
153	Shaanxi Dingbian Clean Energy Power Generation Co., Ltd. Phase I Guancun Photovoltaic Project	5	Public infrastructure projects	12.50%
154	Shaanxi Dingbian Clean Energy Power Generation Co., Ltd. Phase II Guancun Photovoltaic Project	5	Public infrastructure projects	12.50%
155	Gansu Guazhou Concord Wind Power Co., Ltd.	5	Western development	15%
156	Qinghai SPIC Jidian New Energy Co., Ltd.	5	Western development	15%
157	SPIC Hubei Yichang	4	Public infrastructure	12.50%

No.	Name	Level	Preferential tax policies	Tax rate in 2019
	New Energy Co., Ltd.		projects	
158	SPIC Jiangxi Ji'an New Energy Co., Ltd. Diaoyutai Wind Farm	2	Public infrastructure projects	12.50%
159	SPIC Jiangxi Ganzhou New Energy Co., Ltd. Xingguo Branch	2	Public infrastructure projects	12.50%
160	SPIC Hunan Loudi New Energy Co., Ltd.	3	Public infrastructure projects	12.50%
161	SPIC Jiangxi Leping New Energy Co., Ltd.	2	Public infrastructure projects	12.50%
162	SPIC Jiangxi Ganzhou New Energy Co., Ltd. Shangyou Branch Xian'etang Wind Farm	2	Public infrastructure projects	12.50%
163	SPIC Jiangxi Ganzhou New Energy Co., Ltd. Tianhushan Wind Farm	2	Public infrastructure projects	12.50%
164	SPIC Fujian Electric Power Investment Co., Ltd.	2	Public infrastructure projects	Exempted
165	SPIC Jiangxi Gongqingcheng New Energy Co., Ltd.	2	Public infrastructure projects	Exempted
166	SPIC Huangshi New Energy Co., Ltd.	3	Public infrastructure projects	Exempted
167	SPIC Jiangxi Ganzhou New Energy Co., Ltd. Xunwu Branch Jilongzhang Wind Farm	2	Public infrastructure projects	Exempted
168	Longnan Jinfusheng New Energy Co., Ltd.	3	Public infrastructure projects	Exempted
169	Hunan Xiangtan Daliwan Photovoltaic Power Generation Co., Ltd.	3	Public infrastructure projects	Exempted
170	SPIC Jiangxi Ganzhou New Energy Co., Ltd. Qiqin Chengshang Wind Farm	2	Public infrastructure projects	Exempted
171	SPIC Fujian Jianning Electric Power Co., Ltd.	2	Public infrastructure projects	Exempted
172	SPIC Ruijin Liujinba Hydropower Development Co., Ltd.	3	Western development	15%
173	SPIC Jiangxi Electric Power Co., Ltd. Shangyoujiang Hydropower Plant	2	Western development	15%
174	SPIC Jiangxi Electric Power Co., Ltd.	2	Western development	15%

No.	Name	Level	Preferential tax policies	Tax rate in 2019
	Xiashan Hydropower Plant			
175	SPIC Jiangxi Electric Power Co., Ltd. Yuezhou Hydropower Plant	2	Western development	15%
176	SPIC Jiangxi Electric Power Co., Ltd. Guixi Photovoltaic Power Generation Branch	2	Public infrastructure projects	12.50%
177	SPIC Jiangxi Electric Power Co., Ltd. Hongmen Photovoltaic Power Generation Branch	2	Public infrastructure projects	12.50%
178	SPIC Jiangxi Electric Power Co., Ltd. Xinyu Photovoltaic Power Generation Branch	2	Public infrastructure projects	12.50%
179	SPIC Jiangxi Electric Power Co., Ltd. Jing'an Photovoltaic Power Generation Branch	2	Public infrastructure projects	12.50%
180	SPIC Jiangxi Electric Power Co., Ltd. Songhu New Energy Branch	2	Public infrastructure projects	Exempted
181	SPIC Jiangxi Electric Power Co., Ltd. Chongren Branch	2	Public infrastructure projects	Exempted
182	SPIC Jiangxi Electric Power Co., Ltd. Yongxiu Photovoltaic Power Generation Branch	2	Public infrastructure projects	Exempted
183	Yunnan Dianneng Niulanjiang Hydropower Development Co., Ltd.	4	Western development	15%
184	Yunnan Dianneng Huize Niulan River Hydroelectric Development Co., Ltd.	4	Western development	15%
185	Yiliang Dianneng Luoze River Basin Power Generation Co., Ltd.	4	Western development	15%
186	Yiliang Dianneng Xiongjiagou Power Generation Co., Ltd.	4	Western development	15%
187	Yunnan Dianneng Chuxiong Hydropower Development Co., Ltd.	4	Western development	15%

No.	Name	Level	Preferential tax policies	Tax rate in 2019
188	Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd.	3	Western development	15%
189	Yunnan Dianneng (Group) Kunming Chaishitan Power Generation Co., Ltd.	3	Western development	15%
190	Yunnan Dianneng Sinanjiang Hydropower Development Co., Ltd.	4	Western development	15%
191	Lvchun Xinyuan Power Generation Co., Ltd.	4	Western development	15%
192	SPIC Baoshan Longjiang Hydropower Development Co., Ltd.	3	Western development	15%
193	SPIC Chongqing Jiangkou Hydropower Co., Ltd.	2	Western development	15%
194	SPIC Chongqing Shizitan Power Generation Co., Ltd.	2	Western development	15%
195	State Nuclear Electric Power Planning Design & Research Institute Co., Ltd.	3	High-tech	15%
196	Shandong Nuclear Power Equipment Manufacturing Co., Ltd.	3	High-tech	15%
197	Shandong Electric Power Engineering Consulting Institute Corp., Ltd.	3	High-tech	15%
198	State Nuclear Power Plant Service Company	3	High-tech	15%
199	Shanghai Nuclear Engineering Research & Design Institute Co., Ltd.	3	High-tech	15%
200	Shanghai Power Equipment Research Institute Co., Ltd.	3	High-tech	15%
201	State Nuclear Power Engineering Corp., Ltd.	3	High-tech	15%
202	State Nuclear Power Automation System Engineering Company	3	High-tech	15%
203	State Nuclear Bao Ti	3	High-tech	15%

No.	Name	Level	Preferential tax policies	Tax rate in 2019
	Zirconium Industry Company			
204	Northwest Zirconium Tube Co., Ltd.	4	High-tech	15%
205	State Nuclear Zirconium & Hafnium Physical and Chemical Testing Co., Ltd.	4	High-tech	15%
206	National Nuclear Uranium Industry Development Co., Ltd.	3	High-tech	15%
207	Shandong Nuclear Power Company Ltd.	4	Public infrastructure projects	Exempted
208	SPIC Yuanqu New Energy Power Generation Co., Ltd.	4	Public infrastructure projects	Exempted
209	SPIC Lingchuan New Energy Power Generation Co., Ltd.	4	Public infrastructure projects	Exempted
210	SPIC Hunan Xinhua New Energy Power Generation Co., Ltd.	4	Public infrastructure projects	Exempted
211	Hexian SPIC Power Generation Co., Ltd.	4	Public infrastructure projects	Exempted
212	Jiangxi Pengze Ganhe Photovoltaic Co., Ltd.	4	Public infrastructure projects	Exempted
213	Linxian SPIC New Energy Power Generation Co., Ltd.	4	Public infrastructure projects	Exempted
214	Jingyu Honghe New Energy Co., Ltd.	4	Public infrastructure projects	Exempted
215	SPIC Yuanda Environmental Protection Engineering Co., Ltd.	2	Western development	15%
216	Chongqing Yuanda Flue Gas Treatment Franchise Co., Ltd.	3	Western development	15%
217	Inner Mongolia Yuanda Shouda Environmental Protection Co., Ltd.	4	Western development	15%
218	Guizhou Yuanda Flue Gas Treatment Co., Ltd.	4	Western development	15%
219	Guizhou Yuanda Environmental Protection Engineering Co., Ltd.	4	West development and exemption for desulfurization business	12.50%
220	SPIC Yuanda Environmental Protection Catalyst Co., Ltd.	2	Western development	15%

No.	Name	Level	Preferential tax policies	Tax rate in 2019
221	Chongqing Heji Environmental Testing Co., Ltd.	4	Western development	15%
222	Chongqing Yuanda Catalyst Comprehensive Utilization Co., Ltd.	4	Western development	15%
223	SPIC Yuanda Water Service Co., Ltd.	2	Western development	15%
224	Chaoyang Yuanda Environmental Protection Water Service Co., Ltd.	4	Public infrastructure projects	12.50%
225	Lingyuan Yuanda Water Service Co., Ltd.	4	Public infrastructure projects	12.50%
226	Changtu Yuanda Water Service Co., Ltd.	4	Public infrastructure projects	12.50%
227	SPIC Chongqing Yuanda Energy Saving Technology Service Co., Ltd.	2	Western development	15%
228	Yancheng Yuanzhong Energy Co., Ltd.	4	Public infrastructure projects	Exempted
229	Yancheng Economic and Technological Development Zone Baori New Energy Technology Co., Ltd.	4	Public infrastructure projects	Exempted
230	Sichuan Ya'an Guidufu Electric Power Co., Ltd.	3	Western development	15%
231	Sichuan Zhongxing Electric Power Development Co., Ltd.	3	Western development	15%
232	Huidong Xingguang Electric Power Co., Ltd.	3	Western development	15%
233	Mabian Xianjia Puhe Electric Power Co., Ltd.	3	Western development	15%
234	Sichuan Xingding Electric Power Co., Ltd.	4	Western development	15%

6.2.3 Preference for property tax and urban land use tax

(1) According to the Notices MSDM [2014] B No. 041 and MSDM [2014] B No. 042 of the First Tax Office of the State Taxation Bureau of Minhang District, Shanghai, Shanghai Electric Power Industry School is exempted from urban land use tax and property tax every year.

(2) According to the Circular of the Ministry of Finance and the General Administration of Taxation on Renewing Preferential Policies on Value-added

Tax, Property Tax and Urban Land Use Tax for Heat Supply Enterprises (CS [2019] No. 38), from January 1, 2019 to December 31, 2020, for the heat supply enterprises that collect heating costs from residents, the property tax and urban land use tax for the plants and land used for supplying heat shall be exempted, while other plants and land of the heat supply enterprises shall be subject to the property tax and urban land use tax in accordance with the relevant provisions. For specialized heat supply enterprises, the property tax and urban land use tax for the plants and land used for supplying heat shall be exempted according to the proportion of the heating cost income collected from residents to the total heating cost income. For enterprises partly engaged in heat supply, the property tax and urban land use tax to be exempt shall be calculated separately, depending on the situation if the plants and land used for supplying heat can be distinguished from that used for other production and operating activities. If so, the enterprises' property tax and urban land use tax to be exempt for the plants and land used for supplying heat shall be calculated according to the proportion of the heating cost income collected from residents to the total heating cost income. If not, the property tax and urban land use tax to be exempt for all plants and land of the enterprises shall be calculated according to the proportion of the heating cost income collected from residents to the total operation income of the enterprises. For the heat supply enterprises that are affiliated to the Company and collect heating costs from residents, the property tax and urban land use tax for the plants and land used for supplying heat shall be exempted. Some subsidiaries of the Company enjoyed this preferential policy.

6.2.4 Preference for urban land use tax

According to the Provisions of the State Administration of Taxation on the Exemption of Land Use Taxes for the Electric Power Industry (GSDZ [1989] No. 13), the ash yard and ash pipelines outside the factory walls of the subsidiaries of the Company were exempted from land use tax this year.

6.3 Other remarks

None.

7. Business combination and consolidated financial statements

7.1 Subsidiaries

No.	Name	Level	Type	Registration place	Principal place of business	Business nature	Paid-in capital	Shareholding ratio (%)	Voting ratio (%)	Amount of investment	Method of acquisition
1	SPIC Northeast Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Shenyang	Shenyang	Electric heating production and sales	6,599,005,817.68	100	100	12,315,612,345.05	Established by investment
2	SPIC Hebei Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Shijiazhuang	Shijiazhuang	Power production and sales	895,968,700.00	100	100	1,767,314,291.09	Established by investment
3	SPIC Henan Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Zhengzhou	Zhengzhou	Power production and sales	2,726,350,000.00	100	100	9,413,403,806.41	Established by investment
4	SPIC Jiangxi Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Nanchang	Nanchang	Power production and sales	2,070,030,733.33	56.82	56.82	4,727,820,687.12	Established by investment
5	China Power International Development Limited	2	Foreign non-financial subsidiary	Hong Kong	Hong Kong	Power investment, production and sales	10,198,059,200.24	100	100	10,198,059,200.24	Established by investment
6	Shanghai Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Shanghai	Shanghai	Electric heating production and sales	2,617,164,197.00	58.36	58.36	5,530,770,495.20	Established by investment
7	State Power Investment Corporation Yuanda Environmental Protection Co., Ltd.	2	Domestic non-financial subsidiary	Chongqing	Chongqing	Environmental protection	780,816,890.00	43.74	43.74	1,835,115,468.33	Business combination not under common control
8	Huanghe Hydropower Development Co., Ltd. of SPIC	2	Domestic non-financial subsidiary	Xi'an	Xi'an	Power production and sales	10,987,535,408.51	94.17	94.17	6,423,819,843.44	Established by investment
9	China Electric Energy Complete Equipment Co., Ltd.	2	Domestic non-financial subsidiary	Beijing	Beijing	Package of power service	233,394,139.64	100	100	302,062,146.76	Established by investment
10	SPIC	2	Domestic	Tongliao	Tongliao	Coal, power	3,300,000,000.00	65	65	2,295,126,330.76	Business

No.	Name	Level	Type	Registration place	Principal place of business	Business nature	Paid-in capital	Shareholding ratio (%)	Voting ratio (%)	Amount of investment	Method of acquisition
	Mengdong Energy Co., Ltd.		non-financial subsidiary			and aluminum					combination not under common control
11	Inner Mongolia Daban Power Generation Co., Ltd.	2	Domestic non-financial subsidiary	Chifeng	Chifeng	Power production and sales	1,559,710,000.00	95	100	1,481,720,000.00	Established by investment
12	SPIC Jilin Energy Investment Co., Ltd.	2	Domestic non-financial subsidiary	Changchun	Changchun	Power production and sales	3,099,405,194.40	100	100	3,598,563,396.02	Established by investment
13	State Nuclear Power Technology Corporation	2	Domestic non-financial subsidiary	Beijing	Beijing	Nuclear power project investment	24,028,835,323.56	90.01	90.01	37,201,991,018.14	Established by investment
14	SPIC Yunnan International Power Investment Co., Ltd.	2	Domestic non-financial subsidiary	Kunming	Kunming	Power production and sales	3,437,930,000.00	100	100	3,511,837,255.82	Established by investment
15	SPIC Guizhou Jinyuan Co., Ltd.	2	Domestic non-financial subsidiary	Guiyang	Guiyang	Power production and sales	4,692,315,400.00	68.05	68.05	3,193,120,000.00	Business combination not under common control
16	CPI Xinjiang Energy and Chemical Industry Co., Ltd.	2	Domestic non-financial subsidiary	Urumqi	Urumqi	Chemical industry investment and management	4,102,933,694.00	67.94	67.94	3,453,040,000.00	Established by investment
17	China Power Investment Co., Ltd.	2	Domestic non-financial subsidiary	Beijing	Beijing	Project investment	86,000,000.00	100	100	58,295,451.00	Established by investment
18	SPIC Aluminum & Power Investment Co., Ltd.	2	Domestic non-financial subsidiary	Beijing	Beijing	Investment in offshore mining	4,477,131,645.69	100	100	9,224,048,000.00	Established by investment
19	SPIC Logistics Co.,	2	Domestic non-financial	Beijing	Beijing	Logistics	5,900,319,150.34	100	100	5,866,039,625.76	Established by

No.	Name	Level	Type	Registration place	Principal place of business	Business nature	Paid-in capital	Shareholding ratio (%)	Voting ratio (%)	Amount of investment	Method of acquisition
	Ltd.		subsidiary								investment
20	SPIC Sichuan Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Chengdu	Chengdu	Power production and sales	2,587,252,400.00	100	100	2,587,252,400.00	Established by investment
21	CPI (Shanghai) Aluminum Co., Ltd.	2	Domestic non-financial subsidiary	Shanghai	Shanghai	Aluminum trade	100,000,000.00	100	100	100,000,000.00	Established by investment
22	SPIC Information Technology Co., Ltd.	2	Domestic non-financial subsidiary	Beijing	Beijing	Software development and information service	235,989,575.50	97.76	100	234,292,852.81	Established by investment
23	SPIC Dongfang New Energy Corporation	2	Domestic non-financial subsidiary	Shijiazhuang	Shijiazhuang	Production and sales of heat power	5,383,418,520.00	59.39	59.39	10,541,911,700.00	Business combination not under common control
24	China United Heavy-duty Gas Turbine Technology Co., Ltd.	2	Domestic non-financial subsidiary	Shanghai	Shanghai	Technology development and service	1,100,000,000.00	64	64	704,000,000.00	Established by investment
25	SPIC Heilongjiang New Energy Co., Ltd.	2	Domestic non-financial subsidiary	Harbin	Harbin	Power production and sales	379,177,200.00	100	100	379,177,200.00	Established by investment
26	State Power Investment Overseas Co., Ltd.	2	Domestic non-financial subsidiary	Zhuhai	Zhuhai	Overseas development of and investment in nuclear power	282,500,000.00	100	100	282,500,000.00	Established by investment
27	SPIC Chongqing Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Chongqing	Chongqing	Development and management of power supply	3,886,832,013.55	100	100	4,432,432,989.52	Established by investment
28	SPIC Fujian New Energy Co., Ltd.	2	Domestic non-financial subsidiary	Fuzhou	Fuzhou	Power generation	155,455,200.00	100	100	155,455,200.00	Established by investment
29	SPIC Pingtan	2	Domestic	Pingtan	Pingtan	Power	40,000,000.00	100	100	40,000,000.00	Established

No.	Name	Level	Type	Registration place	Principal place of business	Business nature	Paid-in capital	Shareholding ratio (%)	Voting ratio (%)	Amount of investment	Method of acquisition
	Energy Co., Ltd.		non-financial subsidiary			generation					by investment
30	SPIC Scientific Technology Research Institute Co., Ltd.	2	Domestic non-financial subsidiary	Beijing	Beijing	Engineering and technical research	1,200,000,000.00	96	100	733,558,872.60	Established by investment
31	International Finance (Hong Kong) Company Limited	2	Foreign non-financial subsidiary	Hong Kong	Hong Kong	Investment	813,402,750.00	100	100	814,464,700.00	Established by investment
32	SPIC Asset Management Co., Ltd.	2	Domestic non-financial subsidiary	Hedong District, Tianjin	Hedong District, Tianjin	Foreign investment	1,174,234,549.00	100	100	1,174,234,549.00	Established by investment
33	SPIC Inner Mongolia Energy Co., Ltd.	2	Domestic non-financial subsidiary	Hohhot	Hohhot	Coal mining and power production	2,224,194,378.49	100	100	4,596,619,618.95	Established by investment
34	SPIC Beijing Electric Power Co., Ltd.	2	Domestic non-financial subsidiary	Mentougou, Beijing	Mentougou, Beijing	Power supply	3,373,289,149.53	100	100	3,001,790,829.85	Established by investment
35	Jiaxing Rongneng New Technology Investment Partnership (L.P.)	2	Structured entity	Jiaxing, Zhejiang	Jiaxing, Zhejiang	Investment in energy sector	200,000,000.00	83.38	100	50,000,000.00	Established by investment
36	SPIC Heilongjiang Lvtuo New Energy Co., Ltd.	2	Domestic non-financial subsidiary	Harbin	Harbin	Wind power and solar power generation	227,150,000.00	60	100	227,150,000.00	Established by investment
37	SPIC Shanxi Clean Energy Co., Ltd.	2	Domestic non-financial subsidiary	Taiyuan	Taiyuan	Power and heat production	130,000,000.00	100	100	94,000,000.00	Established by investment
38	SPIC Fund Management Co., Ltd.	2	Domestic financial subsidiary	Beijing	Beijing	Entrusted management of equity investment	190,000,000.00	100	100	190,000,000.00	Established by investment

No.	Name	Level	Type	Registration place	Principal place of business	Business nature	Paid-in capital	Shareholding ratio (%)	Voting ratio (%)	Amount of investment	Method of acquisition
						funds and asset management					
39	State Nuclear Capital Holdings Co., Ltd.	2	Domestic financial subsidiary	Shanghai	Shanghai	Equity investment and industrial investment	1,163,460,753.72	64.46	64.46	883,813,821.47	Established by investment
40	Beijing Changqing Diantou Hydrogen Energy Industry Investment Center (Limited Partnership)	2	Structured entity	Beijing	Beijing	Equity investment, investment management and assets management	6,000,000.00	65.33	66.66	6,000,000.00	Established by investment
41	SPIC Hainan New Energy Investment Co., Ltd.	2	Domestic non-financial subsidiary	Hainan	Hainan	New energy and power development		100	100		Established by investment
42	SPIC Xiong'an Energy Co., Ltd.	2	Domestic non-financial subsidiary	Shijiazhuang	Shijiazhuang	Wind power and solar power generation	20,000,000.00	100	100	20,000,000.00	Established by investment
43	Diantou Huanghe (Jiaxing) Energy Investment Partnership (Limited Partnership)	2	Structured	Jiaxing, Zhejiang	Jiaxing, Zhejiang	Investment in energy sector					Under liquidation
44	SPIC Ronghe New Energy Industry Fund No. 5	2	Structured entity	Beijing	Beijing	Foreign investment					
45	SPIC Ronghe New Energy Industry Fund No. 6	2	Structured entity	Beijing	Beijing	Foreign investment					
46	China Power	3	Foreign	Hong Kong	Hong Kong	Power	9,020,601,557.91	56.04	56.04	5,632,607,135.93	Established

No.	Name	Level	Type	Registration place	Principal place of business	Business nature	Paid-in capital	Shareholding ratio (%)	Voting ratio (%)	Amount of investment	Method of acquisition
	International Development Limited		non-financial subsidiary			production and sales					by investment
47	Huolinhe Opencut Coal Industry Corporation Limited of Inner Mongolia	3	Domestic non-financial subsidiary	Tongliao	Tongliao	Coal production and sales	1,921,573,493.00	58.39	58.39	1,985,184,001.47	Established by investment
48	Jilin Electric Power Co., Ltd.	3	Domestic non-financial subsidiary	Changchun	Changchun	Power construction and production	2,146,313,980.00	28.15	28.15	2,352,399,619.87	Established by investment
49	China Kangfu International Leasing Co., Ltd.	3	Domestic financial subsidiary	Beijing	Beijing	Financial leasing services	2,497,918,927.00	20.05	20.05	509,000,000.00	Business combination not under common control
50	SPIC Xianrong Futures Co., Ltd.	4	Domestic financial subsidiary	Chongqing	Chongqing	Futures broker	1,010,000,000.00	42.48	42.48	770,859,750.73	Business combination not under common control
51	SPIC Guizhou Jinyuan Weining Energy Co., Ltd.	3	Domestic non-financial subsidiary	Bijie	Bijie	Photovoltaic and hydroelectric projects	2,708,693,618.00	32.91	32.91	78,000,000.00	Established by investment

Remarks: This year, there were 45 Level-2 subsidiaries within the consolidation scope, decreasing by 7 ones compared with those of the previous year. Among them, 2 Level-2 subsidiaries are newly established and 7 ones (2 original Level-2 subsidiaries were adjusted to Level-3 ones and 5 original Level 2 subsidiaries were adjusted to Level-4 ones) are reduced. The changes are described as follows:

(1) Two newly established subsidiaries are SPIC Xiong'an Energy Co., Ltd. and SPIC Hainan New Energy Investment Co., Ltd.

(2) 2 original Level-2 subsidiaries were adjusted to Level-3 ones: SPIC Capital Holding Co., Ltd. and Shanghai Changxing Island Thermal Power Co., Ltd.

(3) 5 original Level 2 subsidiaries were adjusted to Level-4 ones: Yancheng Thermal Power Co., Ltd., SPIC Gansu New Energy Co., Ltd., SPIC

Shaanxi New Energy Co., Ltd., SPIC Tibet Energy Co., Ltd. and SPIC Financial Co., Ltd.

7.2 Reasons for that the parent company with less than half of the voting rights in the investee has control over the investee

No.	Name	Shareholding ratio (%)	Voting ratio (%)	Registered capital	Amount of investment	Level	Reason for inclusion in the consolidation scope
1	State Power Investment Corporation Yuanda Environmental Protection Co., Ltd.	43.74	43.74	780,816,890.00	1,835,115,468.33	2	It is the largest shareholder and the voting rights held by other investors are scattered, so the Company has substantial control
2	Jilin Electric Power Co., Ltd.	28.15	28.15	2,146,313,980.00	2,352,399,616.52	3	It is the largest shareholder and the voting rights held by other investors are scattered, so the Company has substantial control

7.3 Information of significant non-wholly-owned subsidiaries

7.3.1 Minority shareholders

No.	Name	Shareholding by minority shareholders (%)	Profit or loss attributable to minority shareholders in 2019	Dividends paid to minority shareholders in 2019	Accumulated minority equity as at December 31, 2019
1	State Power Investment Corporation Yuanda Environmental Protection Co., Ltd.	56.26	62,486,219.59	21,964,179.15	2,867,528,248.10
2	SPIC Dongfang New Energy Corporation	40.61	541,636,250.83	402,309,127.82	6,233,622,153.47
3	State Nuclear Power Technology Corporation	9.99	123,805,847.36		3,802,280,935.13
4	Shanghai Electric Power Co., Ltd.	47.75	459,534,818.14	349,713,610.29	9,100,383,216.13
5	Huanghe Hydropower Development Co., Ltd. of SPIC	5.83	188,616,951.81	28,536,525.70	1,639,325,208.88
6	SPIC Guizhou Jinyuan Co., Ltd.	31.95	-77,588,820.91		-61,509,430.09

7.3.2 Main financial information

Item	Amount in 2019					
	State Power Investment Corporation Yuanda Environmental Protection Co., Ltd.	SPIC Dongfang New Energy Corporation	State Nuclear Power Technology Corporation	Shanghai Electric Power Co., Ltd.	Huanghe Hydropower Development Co., Ltd. of SPIC	SPIC Guizhou Jinyuan Co., Ltd.
Current assets	3,847,997,081.44	47,080,184,302.88	32,075,308,517.59	18,020,954,912.34	26,166,137,546.04	9,278,969,479.35
Non-current assets	5,314,085,097.44	32,466,471,716.81	131,166,018,332.42	93,001,762,481.45	99,723,991,675.28	45,578,068,345.18
Total assets	9,162,082,178.88	79,546,656,019.69	163,241,326,850.01	111,022,717,393.79	125,890,129,221.32	54,857,037,824.53
Current liabilities	3,349,842,401.61	42,228,875,929.55	52,344,812,775.61	45,249,766,604.74	27,215,067,087.90	20,514,295,141.58
Non-current liabilities	363,095,409.24	6,624,226,841.00	55,173,095,600.24	35,704,110,962.79	52,271,467,224.15	28,477,628,963.99
Total liabilities	3,712,937,810.85	48,853,102,770.55	107,517,908,375.85	80,953,877,567.53	79,486,534,312.05	48,991,924,105.57
Operating revenue	4,067,543,739.51	8,473,583,377.62	27,157,126,833.05	23,690,034,551.14	29,926,167,813.20	15,444,202,128.82
Net profit	125,123,159.90	2,486,029,172.51	2,196,465,789.97	2,017,827,810.67	4,025,642,446.89	-130,255,891.78
Total comprehensive income	129,425,370.54	2,479,882,166.24	2,429,092,891.58	2,052,198,835.01	4,019,136,285.14	-127,263,674.04
Cash flows from operating activities	428,735,177.64	-2,040,006,490.64	1,975,952,186.43	5,930,132,245.92	3,876,535,120.57	1,690,541,722.86

(Continued)

Item	Amount in 2018					
	State Power Investment Corporation Yuanda Environmental Protection Co., Ltd.	SPIC Dongfang New Energy Corporation	State Nuclear Power Technology Corporation	Shanghai Electric Power Co., Ltd.	Huanghe Hydropower Development Co., Ltd. of SPIC	SPIC Guizhou Jinyuan Co., Ltd.
Current assets	3,516,252,297.38	42,140,484,577.98	35,950,053,434.43	12,485,776,505.65	17,863,230,801.71	6,239,457,810.17
Non-current assets	5,470,740,128.42	32,903,570,114.83	122,122,082,155.21	86,914,359,631.13	88,461,888,927.35	40,328,369,281.27
Total assets	8,986,992,425.80	75,044,054,692.81	158,072,135,589.64	99,400,136,136.78	106,325,119,729.06	46,567,827,091.44
Current liabilities	3,147,590,974.29	39,500,064,446.38	49,248,762,553.19	38,411,538,735.40	20,647,573,959.68	17,003,776,436.96
Non-current liabilities	453,074,584.41	6,780,750,200.18	55,575,029,025.19	34,399,889,456.96	54,702,553,541.90	24,711,455,318.91
Total liabilities	3,600,665,558.70	46,280,814,646.56	104,823,791,578.38	72,811,428,192.36	75,350,127,501.58	41,715,231,755.87
Operating revenue	3,676,485,752.56	9,308,828,238.93	1,885,931,449.47	22,778,665,351.55	21,718,349,941.00	13,674,879,337.48
Net profit	135,564,844.43	2,373,540,168.82	-207,927,084.62	3,398,300,098.40	3,624,776,233.61	-1,077,353,059.00
Total comprehensive income	98,093,640.14	2,469,505,151.62	1,875,210,988.76	3,015,350,045.63	3,598,364,874.86	-1,077,353,059.00
Cash flows from operating activities	251,373,907.79	4,127,084,987.07	-4,171,484,724.67	6,546,689,126.09	437,898,574.78	2,730,944,879.42

7.4 Original subsidiaries excluded from the consolidation scope in 2019

7.4.1 Basic information about the original subsidiaries

No.	Name	Registration place	Business nature	Shareholding ratio (%)	Voting ratio (%)	Reason for no longer being a subsidiary in 2019
1	SPIC Mengxi Energy Co., Ltd.	Hohhot	Power and heat production and supply	100.00	100.00	Disposal
2	Ningxia Hongdunzi Coal Industry Co., Ltd.	Ningxia Hui Autonomous Region	Other coal mining	100.00	100.00	Loss of control due to the sale of equity

7.4.2 Financial situation on the disposal date of the subsidiaries disposed of in 2019

Name of original subsidiary	SPIC Mengxi Energy Co., Ltd.		Ningxia Hongdunzi Coal Industry Co., Ltd.	
Deadline	Disposal date July 31, 2019	December 31, 2018	Disposal date September 30, 2019	December 31, 2018
Assets	595,650,803.93	595,715,250.21	5,259,537,732.84	314,919,215.06
Liabilities	67,608,148.20	67,129,738.39	5,230,279,792.13	314,919,215.06
Owners' equity	528,042,655.73	528,585,511.82	29,257,940.71	

7.4.3 Operating results from January 1, 2019 to the disposal date of the subsidiaries disposed in 2019

Name of original subsidiary	SPIC Mengxi Energy Co., Ltd.		Ningxia Hongdunzi Coal Industry Co., Ltd.	
Period	January 1, 2019 - Disposal date	Year 2018	January 1, 2019 - Disposal date	Year 2018
Operating revenue		65,772.41	2,878,101.83	
Operating cost	542,856.09	23,692,729.42	2,171,066.05	
Operating profit	-542,856.09	-21,364,012.68	-168,612,820.49	
Total profit	-542,856.09	-21,364,012.68	-170,742,059.29	
Net profit	-542,856.09	-21,364,012.68	-170,742,059.29	

7.5 Entities newly included in the consolidation scope in 2019

No.	Name	Way of control	Net asset as at December 31, 2019	Net profit in 2019
1	SPIC Hainan New Energy Investment Co., Ltd.	Established by investment	14,510,517.80	14,510,517.80
2	SPIC Xiong'an Energy Co., Ltd.	Established by investment	20,000,000.00	-

7.6 Business combinations not under common control in 2019

Name of company	Combination date	Book value of net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to December 31, 2019	Net profit of the acquiree from the acquisition date to December 31, 2019
			Amount	Recognition method		Amount	Recognition method		
Henan New Hope New Energy Technology Co., Ltd.	2019-7-1	4,571,896.63	4,571,896.63	Remark 1				62,831,900.00	-39,400.00
Daqing Meiyangda New Energy Technology Development Co., Ltd.	2019-1-1	12,759,885.54	16,471,000.00	Remark 1	16,471,000.00			5,636,400.00	-1,575,100.00
Jiangling County GCL Solar Power Co., Ltd.	2019-3-31	231,650,815.36	126,385,908.71	Remark 1	146,400,330.51	59,994,445.72	Remark 3	69,456,300.00	24,209,700.00
Hefei Hanyu New Energy Technology Co., Ltd.	2019-10-31	800.00	800.00	Remark 2					
Jingle Hongyi Energy Development Co., Ltd.	2019-11-30	49,800.00	49,800.00	Remark 2					
Xin'an County GCL Solar Power Co., Ltd.	2019-3-31	185,030,519.04	194,462,062.99	Remark 1	106,683,152.18			54,256,000.00	12,398,400.00
Daoxian Clean Energy Development Co., Ltd.	2019-11-30	3,000.00	3,000.00	Remark 2					

Name of company	Combination date	Book value of net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to December 31, 2019	Net profit of the acquiree from the acquisition date to December 31, 2019
			Amount	Recognition method		Amount	Recognition method		
Ningxia Lingjia Electric Power Co., Ltd.	2019-10-31	-5,100.00	-5,100.00	Remark 2					
Qingyuan Yousheng Asset Investment Co., Ltd.	2019-9-30	46,552,600.00	47,067,700.00	Remark 1					
Jingle County Xinfeng Energy Development Co., Ltd.	2019-11-30	123,537,600.00	124,200,800.00	Remark 1	86,470,000.00				
Jiangyong Clean Energy Development Co., Ltd.	2019-9-30	214,185.99	214,185.99	Remark 2					
Ruzhou GCL Solar Power Co., Ltd.	2019-3-31	190,103,827.49	74,900,202.26	Remark 1	110,989,381.62	51,276,540.38	Remark 3	59,097,500.00	15,429,600.00
CPI Xinjiang Energy and Chemical Group Turpan Co., Ltd.	2019-3-31	46,192.80	90,646.03	Remark 2					
SPIC Huaze (Tianjin) Asset Management Co., Ltd.	2019-4-1	1,338,410,209.00	1,636,876,500.00	Remark 1	872,132,549.00			7,713,200.00	16,026,100.00

Name of company	Combination date	Book value of net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to December 31, 2019	Net profit of the acquiree from the acquisition date to December 31, 2019
			Amount	Recognition method		Amount	Recognition method		
Pei County Yunda New Energy Technology Co., Ltd.	2019-12-31	17,731,069.88	17,731,069.88	Remark 1	11,836,603.04				
Fengkai Xinye Green Energy Technology Co., Ltd.	2019-12-31	46,800,000.00	46,800,000.00	Remark 1	32,077,000.00				
Guangxi Wuxuan Xingye New Energy Technology Co., Ltd.	2019-11-30	32,976,611.87	32,976,611.87	Remark 1	19,690,790.00			1,375,853.10	164,839.85
Yunnan Xinglan New Energy Technology Co., Ltd.	2019-12-31	145,206,384.84	145,206,384.84	Remark 1	101,967,600.00				
Bijie Xingye Green Energy Technology Co., Ltd.	2019-12-31	42,850,000.00	42,850,000.00	Remark 1	29,995,000.00				
Changsha Zhaosheng New Energy Co., Ltd.	2019-12-31	46,228,275.11	46,228,275.11	Remark 1	22,658,631.87				
Hunan SEP Xiang'an New Energy Technology Co., Ltd.	2019-12-1	43,136,545.73	43,136,545.73	Remark 1	21,136,264.00				8.60
Changsha Jingya New Energy Co., Ltd.	2019-12-31	36,389,791.09	36,389,791.09	Remark 1	17,836,686.57				

Name of company	Combination date	Book value of net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to December 31, 2019	Net profit of the acquiree from the acquisition date to December 31, 2019
			Amount	Recognition method		Amount	Recognition method		
Yuhuan Jingke Electric Power Co., Ltd.	2019-4-30	260,446,886.77	305,218,227.29	Remark 1	145,431,600.00			73,146,988.63	27,698,087.10
Yuhuan Jingneng Electric Power Co., Ltd.	2019-1-31	98,908,506.81	85,750,924.91	Remark 1	34,578,000.00			107,167,001.85	19,861,713.68
Shouguang Honghai Electric Power Co., Ltd.	2019-11-30	1,674,499.85						522,252.66	-12,692,778.68
Weifang Yuyong Agricultural Development Co., Ltd.	2019-11-30	36,674,499.92	36,674,499.92	Remark 1	32,000,000.00				-1,919.60
Tongcheng Tongyang New Energy Power Generation Co., Ltd.	2019-12-31	81,600,000.00	81,600,000.00	Remark 1	81,212,800.00				
Hefei Longhong New Energy Technology Co., Ltd.	2019-12-31	81,600,380.10	81,600,380.10	Remark 1	81,212,800.00				
Qingyang Xinyang New Energy Power Generation Co., Ltd.	2019-12-31	32,000,000.00	32,000,000.00	Remark 1	31,919,700.00				

Name of company	Combination date	Book value of net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to December 31, 2019	Net profit of the acquiree from the acquisition date to December 31, 2019
			Amount	Recognition method		Amount	Recognition method		
Kangbao Enfa Photovoltaic Power Generation Co., Ltd.	2019-10-31	31,503,406.47	29,104,418.89	Remark 1	23,872,300.00			3,269,651.41	168,913.88
Qingyang Xingong New Energy Power Generation Co., Ltd.	2019-12-31	24,180,000.00	24,180,000.00	Remark 1	24,167,600.00				
Qingyang Changyang New Energy Power Generation Co., Ltd.	2019-12-31	24,180,000.00	24,180,000.00	Remark 1	24,060,400.00				
Chizhou Xinyang New Energy Power Generation Co., Ltd.	2019-12-31	32,000,000.00	32,000,000.00	Remark 1	31,233,800.00				
Tianjin Yanghong Photovoltaic Power Generation Co., Ltd.	2019-9-30	28,387,020.58	28,572,881.16	Remark 1	19,000,000.00			1,155,190.78	70,963.04
Dongfang Tianlihe Photovoltaic Development Co., Ltd.	2019-12-31	6,678,690.14	34,000,000.00	Remark 1	30,500,000.00				

Name of company	Combination date	Book value of net assets	Fair value of identifiable net assets		Trading consideration	Goodwill		Revenue of the acquiree from the acquisition date to December 31, 2019	Net profit of the acquiree from the acquisition date to December 31, 2019
			Amount	Recognition method		Amount	Recognition method		
Dongfang Helitian Photovoltaic Power Development Co., Ltd.	2019-12-31	7,833,337.66	3,200,000.00	Remark 1	1,500,000.00				
Inner Mongolia Zhongneng Guodian New Energy Technology Co., Ltd.	2019-12-31	123,823,847.90	123,400,000.00	Remark 1	121,706,000.00				

Remark 1: The method for recognizing the fair value of identifiable net assets: based on the valuation results of the appraisal report;

Remark 2: The book value of net assets is small, and the book value of net assets is used as the fair value of identifiable net assets;

Remark 3: The method for recognizing goodwill: the difference of the combination cost in excess of the fair value of the acquiree's identifiable net assets;

Remark 4: Arrangements for contingent consideration: There were no arrangements for contingent consideration in the business combinations not under common control in 2019.

Remark 5: No trading consideration is presented by Henan New Hope New Energy Technology Co., Ltd. and Qingyuan Yousheng Asset Investment Co., Ltd., which are subsidiaries by capital increase.

7.7 Changes in the share of owners' equity of the parent company in its subsidiaries

Name of subsidiary	Shareholding as at January 1, 2019 (%)	Shareholding as at December 31, 2019 (%)	Changes in shareholding (%, - if decreased)	Reasons for changes in shareholding
SPIC Dongfang New Energy Corporation	33.37	59.39	26.02	Issuing shares to purchase SPIC Capital Holding Co., Ltd.
Shanghai Electric Power Co., Ltd.	53.27	52.25	-1.02	Selling part of the equity in 2019

8. Notes to significant items to the financial statements

Unless otherwise stated, for the following items, the monetary unit is RMB; the term "beginning of the period" refers to January 1, 2019, the term "end of the period" refers to December 31, 2019, the term "last year" refers to the year 2018 and the term "current year" refers to the year 2019.

8.1 Monetary funds

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Cash on hand	2,186,957.91	1,824,420.91
Bank deposit	24,827,309,134.22	20,783,768,146.76
Other monetary funds	3,399,921,089.57	2,323,497,960.78
Total	28,229,417,181.70	23,109,090,528.45
Including: total amount deposited overseas	9,167,841,265.16	5,666,793,646.61

The restricted monetary funds are detailed as follows:

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Bank acceptance bills deposit	972,680,851.88	724,059,575.34
L/C deposit	538,253,368.27	157,492,897.44
Performance bond	256,319,956.39	276,961,095.10
Fixed-term deposit or call deposit used for guarantee	142,406,873.51	173,515,525.52
Statutory reserve deposited in central bank	1,895,376,942.22	2,514,784,916.95
Others	231,116,674.54	181,695,470.19
Total	4,036,154,666.81	4,028,509,480.54

8.2 Financial assets held for trading

Item	Fair value as at December 31, 2019	Fair value as at January 1, 2019
Financial assets measured at fair value through current profit or loss	9,337,138,036.24	6,055,288,262.68
Including: investment in debt instruments	4,255,416,883.80	1,289,514,803.77
Investment in equity instruments	3,115,409,929.56	3,268,553,525.55
Others	1,966,311,222.88	1,497,219,933.36
Total	9,337,138,036.24	6,055,288,262.68

8.3 Financial assets measured at fair value through current profit or loss

Item	Fair value as at December 31, 2019	Fair value as at January 1, 2019
1. Financial assets held for trading	895,729,855.41	3,307,883,067.37
Including: investment in debt instruments		
Investment in equity instruments	23,650,055.08	32,152,124.40
Others	872,079,800.33	3,275,730,942.97
Total	895,729,855.41	3,307,883,067.37

8.4 Derivative financial assets

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Hedging instruments	31,713,375.00	
Fair Value Hedge		95,621,263.73
Cash Flow Hedge		106,140,224.63
Interest rate swap	1,165,875.38	18,535,026.85
Energy swap	81,129,346.05	69,652,900.15
Total	114,008,596.43	289,949,415.36

Remarks: the above are incurred from hedging.

8.5 Notes receivable

8.5.1 Presentation of notes receivable by category

Category	Amount as at December 31, 2019			Amount as at January 1, 2019		
	Book balance	Provision for bad debts	Book value	Book balance	Provision for bad debts	Book value
Bank acceptance bill	12,094,656,484.72		12,094,656,484.72	7,014,191,654.18		7,014,191,654.18
Commercial acceptance bill	1,974,918,946.77		1,974,918,946.77	1,876,314,039.15		1,876,314,039.15
Total	14,069,575,431.49		14,069,575,431.49	8,890,505,693.33		8,890,505,693.33

8.5.2 Pledged notes receivable as at December 31, 2019

Category	Pledged amount as at December 31, 2019
Bank acceptance bill	250,673,001.15
Commercial acceptance bill	2,119,335.24
Total	252,792,336.39

8.5.3 Notes receivable endorsed or discounted as at December 31, 2019 but not expired on the balance sheet date

Category	Amount derecognized as at December 31, 2019	Amount underrecognized as at December 31, 2019
Bank acceptance bill	12,864,299,011.13	147,885,869.80
Commercial acceptance bill	62,145,272.62	
Total	12,926,444,283.75	147,885,869.80

8.5.4 Notes transferred into the accounts receivable due to the drawer's inability to perform the contract as at December 31, 2019

Category	Amount transferred into accounts receivable as at December 31, 2019
Bank acceptance bill	
Commercial acceptance bill	7,600,000.00
Total	7,600,000.00

8.6 Accounts receivable

8.6.1 Disclosure of accounts receivable by category

Category	Amount as at December 31, 2019			Amount as at January 1, 2019		
	Book balance	Provision for bad debts	Book value	Book balance	Provision for bad debts	Book value
Companies that have not yet implemented the New Standards for Financial Instruments	31,333,192,798.20	871,527,245.89	30,461,665,552.31	27,312,519,874.21	741,475,602.94	26,571,044,271.27
Companies that have implemented the New Standards for Financial Instruments	19,841,213,366.18	373,154,725.28	19,468,058,640.90	14,994,364,756.32	307,053,119.57	14,687,311,636.75
Total	51,174,406,164.38	1,244,681,971.17	49,929,724,193.21	42,306,884,630.53	1,048,528,722.51	41,258,355,908.02

Companies that have not yet implemented the New Standards for Financial Instruments

Category	Amount as at December 31, 2019					Amount as at January 1, 2019				
	Book balance		Provision for bad debts		Book value	Book balance		Provision for bad debts		Book value
	Amount	Proportion (%)	Amount	Proportion of provision (%)		Amount	Proportion (%)	Amount	Proportion of provision (%)	
Accounts receivable which single amount is significant with single bad debt provision	632,493,732.68	2.02	426,486,532.51	67.43	206,007,200.17	1,585,810,289.66	5.81	363,315,992.95	22.91	1,222,494,296.71
Accounts receivable subject to	30,628,108,307.37	97.75	384,203,348.61	1.25	30,243,904,958.76	25,047,892,638.62	91.70	309,187,214.02	1.23	24,738,705,424.60

Category	Amount as at December 31, 2019					Amount as at January 1, 2019				
	Book balance		Provision for bad debts		Book value	Book balance		Provision for bad debts		Book value
	Amount	Proportion (%)	Amount	Proportion of provision (%)		Amount	Proportion (%)	Amount	Proportion of provision (%)	
provision for bad debts based on a portfolio with credit risk features										
Accounts receivable which single amount is insignificant but with single bad debt reserves	72,590,758.15	0.23	60,837,364.77	83.81	11,753,393.38	678,816,945.93	2.49	68,972,395.97	10.16	609,844,549.96
Total	31,333,192,798.20	100.00	871,527,245.89		30,461,665,552.31	27,312,519,874.21	100.01	741,475,602.94		26,571,044,271.27

(1) Accounts receivable with individually significant amount and individual provision for bad debts as at December 31, 2019

Debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
Yunnan Hengan Electric Metallurgy Co., Ltd.	257,337,130.11	257,337,130.11	3-5 years	100.00	Expected to be irrecoverable
Inner Mongolia Electric Power (Group) Co., Ltd.	134,488,226.39	975,000.00	2-3 years	0.72	Expected to be partially irrecoverable
State Grid Energy Hefeng Coal and Electricity Co., Ltd.	62,921,074.34	31,460,537.19	3-4 years	50.00	Expected to be partially irrecoverable
Nanjing Duchen Investment Management Co., Ltd.	46,540,962.98	46,540,962.98	4-5 years	100.00	Expected to be irrecoverable
Beijing China Coal Shuntong International Trade Co., Ltd.	39,368,073.73	39,368,073.73	3-4 years	100.00	Expected to be irrecoverable
China United International Trade (Beijing) Aluminum Co., Ltd.	31,749,521.98	31,749,521.98	3-5 years	100.00	Expected to be irrecoverable
Fushun Liaodian Thermal Co., Ltd.	26,411,689.82	2,732,354.05	1-3 years	10.35	Expected to be partially irrecoverable
State Grid Liaoning Electric Power Supply Co., Ltd. Chaoyang Power Supply Branch	12,214,736.96	251,794.28	1-3 years	2.06	Expected to be partially irrecoverable
Tianjin Metallurgical Group Zhongxing Shengda Steel Industry Co., Ltd.	10,782,316.37	5,391,158.19	1-4 years	50.00	Expected to be partially irrecoverable
Tianjin Tiancheng Pharmaceutical Co., Ltd.	10,680,000.00	10,680,000.00	Over 5 years	100.00	Expected to be irrecoverable
Total	632,493,732.68	426,486,532.51			

(2) Accounts receivable with provision for bad debts made on the basis of portfolio with credit risk features

1) Accounts receivable with the provisions for bad debts made by aging analysis method

Aging	Amount as at December 31, 2019			Amount as at January 1, 2019		
	Book balance		Provision for bad debts	Book balance		Provision for bad debts
	Amount	Proportion (%)		Amount	Proportion (%)	
Within 1 year (inclusive)	1,654,380,858.42	69.85	50,673,550.20	209,123,732.26	19.68	38,213,061.76
1-2 years	362,727,107.62	15.32	52,487,705.38	340,473,374.99	32.03	26,717,135.47
2-3 years	53,266,433.31	2.25	17,367,783.32	207,181,204.89	19.49	40,850,006.98
Over 3 years	297,896,139.46	12.58	263,674,309.71	306,044,022.14	28.80	203,407,009.81
Total	2,368,270,538.81	100.00	384,203,348.61	1,062,822,334.28	100.00	309,187,214.02

2) Accounts receivable with provision for bad debts made with other combination methods:

Name of portfolio	Amount as at December 31, 2019			Amount as at January 1, 2019		
	Book balance	Proportion of provision (%)	Provision for bad debts	Book balance	Proportion of provision (%)	Provision for bad debts
Risk-free portfolio	28,259,837,768.56			23,985,070,304.34		
Total	28,259,837,768.56			23,985,070,304.34		

(3) Accounts receivable with individually insignificant amount and individual provision for bad debts as at December 31, 2019

Debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
Turpan Ruide Chemical and Light Industry Co., Ltd.	6,110,770.83	6,110,770.83	4-5 years	100.00	Expected to be irrecoverable
Chaoyang County Construction Management Committee	5,185,488.06	1,037,097.61	2-3 years	20.00	Expected to be partially irrecoverable
Wu Yuanjun from Inner Mongolia Huayu Coal Transportation and Marketing Co., Ltd.	4,248,747.30	4,248,747.30	Over 5 years	100.00	Expected to be irrecoverable
State Grid Energy Hefeng Coal and Electricity Co., Ltd.	4,018,200.00	4,018,200.00	Over 5 years	100.00	Expected to be irrecoverable
Heat fee receivable	3,476,106.64	3,368,963.33	Over 5 years	96.92	Expected to be partially irrecoverable
Property management fee	3,204,673.33	3,204,673.33	Over 5 years	100.00	Expected to be irrecoverable
Shougang Shuicheng Iron & Steel (Group) Co., Ltd.	2,855,118.24	2,855,118.24	Over 5 years	100.00	Expected to be irrecoverable
Ningxia Import and Export Corporation Aluminum Plant Import and Export Department	2,561,211.74	2,561,211.74	Over 5 years	100.00	Expected to be irrecoverable
Tonghua Jinlong Coal Mine	2,410,000.00	2,410,000.00	Over 5 years	100.00	Expected to be irrecoverable
Liucheng High School, Chaoyang	2,035,114.50	407,022.90	2-3 years	20.00	Expected to be partially irrecoverable
Ningxia Lingwu Baota Dagu Warehousing	2,000,000.00	2,000,000.00	2 years	100.00	Expected to be irrecoverable

Debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
and Transportation Co., Ltd.					
Karamay Dushanzi Dingzhong Trading Co., Ltd.	1,915,770.40	957,885.20	Over 5 years	50.00	Expected to be partially irrecoverable
Chaoyang Experimental High School	1,763,865.60	352,773.12	2-3 years	20.00	Expected to be partially irrecoverable
Luodian Power Supply Bureau	1,530,851.90	1,530,851.90	Over 5 years	100.00	Expected to be irrecoverable
Ningxia Baota Energy Chemical Co., Ltd.	2,500,000.00	2,500,000.00	2 years	100.00	Expected to be irrecoverable
Resident heating fee	1,475,042.89	1,024,524.24	2-5 years	69.46	Expected to be partially irrecoverable
Zunyi Nanjiang Trading Co., Ltd.	1,259,881.49	1,259,881.49	Over 5 years	100.00	Expected to be irrecoverable
Shanxi Linfen Thermal Power Co., Ltd.	1,182,676.50	1,182,676.50	Over 5 years	100.00	Expected to be irrecoverable
Zhangze Power Generation Branch of Shanxi Zhangze Electric Power Co., Ltd.	1,052,671.00	250,000.00	Over 5 years	23.75	Expected to be partially irrecoverable
Chaoyang Tianfu Property Management Co., Ltd.	1,006,434.51	182,988.09	2-3 years	18.18	Expected to be partially irrecoverable
Sub-total	20,798,133.22	19,373,978.95		93.15	Expected to be partially irrecoverable
Total	72,590,758.15	60,837,364.77			

Companies that have implemented the New Standards for Financial Instruments

Category	Amount as at December 31, 2019					Amount as at January 1, 2019				
	Book balance		Provision for bad debts		Book value	Book balance		Provision for bad debts		Book value
	Amount	Proportion (%)	Amount	Proportion of provision (%)		Amount	Proportion (%)	Amount	Proportion of provision (%)	
Provision for bad debts made on a single basis	197,559,772.15	1.00	147,449,145.17	74.64	50,110,626.98	93,836,068.80	0.63	93,532,958.22	99.68	303,110.58
Including: accounts receivable with significant single amount and provision for bad debts made on a single basis	162,165,953.71		112,158,076.73	69.16	50,007,876.98	61,576,147.81		61,576,147.81	100.00	
Accounts receivable with insignificant single amount and provision for bad debts made on a single basis	35,393,818.44		35,291,068.44	99.71	102,750.00	32,259,920.99		31,956,810.41	99.06	303,110.58
Provision for bad debts made on a portfolio basis	19,643,653,594.03	99.00	225,705,580.11	1.15	19,417,948,013.92	14,900,528,687.52	99.37	213,520,161.35	1.43	14,687,008,526.17
Including: low-risk portfolio	14,083,516,527.46				14,083,516,527.46	3,665,086,534.47				3,665,086,534.47
Credit risk portfolio	5,560,137,066.57		225,705,580.11	4.06	5,334,431,486.46	11,235,442,153.05		213,520,161.35	1.90	11,021,921,991.70
Total	19,841,213,366.18	100.00	373,154,725.28		19,468,058,640.90	14,994,364,756.32	100.00	307,053,119.57		14,687,311,636.75

1) Provision for bad debts made on a single basis

Name	Amount as at December 31, 2019			
	Book balance	Provision for bad debts	Proportion of provision (%)	Reason for provision
Lanzhou Xigu Thermal Power Co., Ltd.	13,378,550.66	13,378,550.66	100.00	Expected to be uncollectible
Jishen Chemical Industry Co., Ltd.	63,480,292.04	31,740,146.02	50.00	Expected to be partially uncollectible
Thermal Branch - Tangu Village Committee	29,311,768.11	29,311,768.11	100.00	Expected to be uncollectible
Xinjiang Huadian Changji Thermal Power Plant	23,730,963.20	5,463,232.24	23.02	Expected to be partially uncollectible
Singapore Zhongjun Resources Limited	20,506,184.00	20,506,184.00	100.00	Expected to be uncollectible
State Grid Jilin Electric Power Co., Ltd.	11,758,195.70	11,758,195.70	100.00	Expected to be uncollectible
Shanghai Wanli Dushi Enterprise Development Co., Ltd.	5,044,804.88	5,044,804.88	100.00	Expected to be uncollectible
Shimen Community	3,800,486.06	3,800,486.06	100.00	Expected to be uncollectible
Daming Paper Mill	2,795,591.17	2,795,591.17	100.00	Expected to be uncollectible
Jiyan Development	2,178,162.56	2,178,162.56	100.00	Expected to be uncollectible
Shijiazhuang Changrong Property Management Co., Ltd. (Dehong Real Estate)	1,180,600.70	1,180,600.70	100.00	Expected to be uncollectible
Shijiazhuang Yuma Property Management Center (Zone 1)	1,008,912.67	1,008,912.67	100.00	Expected to be uncollectible
Shijiazhuang Baoshi Color Glass Envelope Co., Ltd.	972,159.85	972,159.85	100.00	Expected to be uncollectible
Shanghai Daily Energy Saving and Environmental Protection Technology Co., Ltd.	902,385.92	902,385.92	100.00	Expected to be uncollectible

Name	Amount as at December 31, 2019			
	Book balance	Provision for bad debts	Proportion of provision (%)	Reason for provision
Huali Copperplate Paper Mill	667,830.35	667,830.35	100.00	Expected to be uncollectible
Shijiazhuang Baifo Industrial Co., Ltd.	657,278.14	657,278.14	100.00	Expected to be uncollectible
Henghui Property (Kaihua Real Estate)	524,230.61	524,230.61	100.00	Expected to be uncollectible
Desheng Property	493,551.06	493,551.06	100.00	Expected to be uncollectible
Lianqiang Community	473,741.81	473,741.81	100.00	Expected to be uncollectible
Xuzhou Tianyong Chemical Co., Ltd.	442,362.08	442,362.08	100.00	Expected to be uncollectible
Shijiazhuang Huabao Property Management Co., Ltd. (Hailong)	402,568.16	402,568.16	100.00	Expected to be uncollectible
Shijiazhuang Tiantong Light Industry Machinery Co., Ltd.	378,819.28	378,819.28	100.00	Expected to be uncollectible
Huayin Power	334,880.00	334,880.00	100.00	Expected to be uncollectible
Shijiazhuang Plastic General Factory	319,110.09	319,110.09	100.00	Expected to be uncollectible
Jixing Real Estate Development Co., Ltd.	307,661.45	307,661.45	100.00	Expected to be uncollectible
North China Pharmaceutical Group Co., Ltd.	303,872.27	303,872.27	100.00	Expected to be uncollectible
Shanghai Waigaoqiao No. 3 Power Generation Co., Ltd.	301,812.46	301,812.46	100.00	Expected to be uncollectible
Sub-total	11,902,996.87	11,800,246.87	99.14	Expected to be partially uncollectible
Total	197,559,772.15	147,449,145.17		

2) Provision for bad debts made on a portfolio basis

Items subject to provision made on portfolio basis:

Name	Amount as at December 31, 2019			Amount as at January 1, 2019		
	Book balance	Provision for bad debts	Proportion of provision (%)	Book balance	Provision for bad debts	Proportion of provision (%)
Low-risk portfolio	14,083,516,527.46			3,665,086,534.47		
Credit risk portfolio	5,560,137,066.57	225,705,580.11	4.06	11,235,442,153.05	213,520,161.35	1.90
Total	19,643,653,594.03	225,705,580.11		14,900,528,687.52	213,520,161.35	

8.6.2 Provision for bad debts recovered or reversed

Debtor	Amount recovered or reversed	Accumulated provision for bad debts before the reversal or recovery	Reason and method for reversal or recovery
China United International Trade (Beijing) Aluminum Co., Ltd.	1,671,406.49	1,671,406.49	Recovered according to the court judgment
Shenyang Electric Power Bureau Electric Cable Factory	3,000,000.00	3,000,000.00	Recovery of monetary funds
State Grid Energy Hefeng Coal and Electricity Co., Ltd.	50,000,000.00	50,000,000.00	Recovery of amount in arrears
Shenhua Shendong Electric Power Co., Ltd.	11,982,779.64	11,982,779.64	Recovery of amount in arrears
Total	66,654,186.13	66,654,186.13	

8.6.3 Accounts receivable actually written off during this reporting period

Debtor	Nature of accounts receivable	Written-off amount	Reasons for written-off	Verification procedures performed	Whether it is due to the related party transactions
China Nuclear Control System Engineering Co., Ltd.	Service fees receivable	34,216.00	Failure to be recovered after collection	Resolved at the board meeting	No
Shandong Linqu Longda Nonferrous Metals Co., Ltd.	Sales of products	1,640.00	Irrecoverable	Resolutions made by the leading group	No
Parrion Holdings	Electricity charge	141,621.21	Irrecoverable	Written off at the amount of write-offs as approved by authorized management according to	No
Arma International Pty Ltd	Electricity charge	112,188.71	Irrecoverable		No
The trustee for Peter Thulborn	Electricity charge	43,098.53	Irrecoverable		No

Debtor	Nature of accounts receivable	Written-off amount	Reasons for written-off	Verification procedures performed	Whether it is due to the related party transactions
Family Trust				the provisions on internal control system	
Rizmar Pty Ltd	Electricity charge	34,859.10	Irrecoverable		No
Millers Premium foods	Electricity charge	31,311.64	Irrecoverable		No
Other retail customers	Electricity charge	817,964.33	Irrecoverable		No
Swedish Carbon Asset Management Co., Ltd.	Carbon emission reduction	16,634,375.08	Irrecoverable because of the other party's bankruptcy	Written off after approval by the Party Committee of Huanghe Company	No
Ningxia Yuejiang Construction Development Co., Ltd.	Payment for goods	132,080.00	Irrecoverable	Party Committee	No
Guangdong Second Light Industry Supply and Marketing Co., Ltd.	Payment for goods	143,319.94	Irrecoverable	Party Committee	No
Yulong Real Estate Co., Ltd.	Payment for goods	56,929.70	Irrecoverable	Party Committee	No
Others	Payment for goods	1,440,239.53	Irrecoverable	Party Committee	No
Jiangxi Xinzhihai Industrial Co., Ltd.	Electric charges receivable	91,399.64	Irrecoverable	Reported to the parent company for record and approved by the General Manager 's Office, and a special audit report issued by Xinyong Zhonghe Certified Public Accountants (Special General Partnership) Wuhan Branch	No
Tonghua Iron & Steel Group Co., Ltd.	Payment for goods	106,366.31	Irrecoverable	Approval by the management	No
Donggang Materials Trade Center	Payment for goods	20,122.67	Irrecoverable	Approval by the management	No
Northeast Electric Power Administration	Payment for goods	1,400,000.00	Irrecoverable	Write-off report	No

Debtor	Nature of accounts receivable	Written-off amount	Reasons for written-off	Verification procedures performed	Whether it is due to the related party transactions
Material Supply and Marketing Corporation					
Zhuangjian Corporation	Payment for brick	70,000.00	Losing a lawsuit	Approval by the management	No
Xinzhaizi Xigou	Payment for brick	5,510.00	Losing a lawsuit	Approval by the management	No
China Construction Third Engineering Bureau	Payment for brick	7,440.00	Losing a lawsuit	Approval by the management	No
Heat fee receivable	Heat charge	1,036,129.15	Irrecoverable	Approval by the management	No
Tongyuan Factory Guanling County Tongyuan Ferroalloy Co., Ltd.	Electricity charge	722,625.54	Irrecoverable according to the court judgment	Approval by Guizhou Jinyuan	No
Guizhou Technology Travel Agency	Reception expenses	143,000.00	Irrecoverable according to the court judgment	Approval by General Manager's Office	No
CNCEC16 Guizhou Project Department	Payment for project	179,467.27	Irrecoverable according to the opinion of the lawyer	Approval by Party Association of Xineng Electric Power Construction	No
Tonghua Hengfeng Economic and Trade Co., Ltd.	Sales	26,352.00	Cancellation of the debtor	Resolved and approved by the 8th meeting of the party committee of Tonghua Thermal Power Co., Ltd. in 2019	No
Heat charge of minor clients	Heat charge	1,519,731.33	Irrecoverable	Court judgement	No
Anshan Hengwei Aluminum Co., Ltd.	Payment for goods	59,383.22	Irrecoverable		No
Zhejiang Shangdian Tiantai Mountain Wind Power Co., Ltd.	Service fee	1,960,031.89	Irrecoverable	General Manager's Office	Yes

Debtor	Nature of accounts receivable	Written-off amount	Reasons for written-off	Verification procedures performed	Whether it is due to the related party transactions
Fujian Longjing Environmental Protection Co., Ltd.	Payment for goods	2,042,695.11	Final judgment	Final judgment and audited by the Group	No
Hebei Provincial Development and Reform Commission Service Industry Development	Heat charge	24,893.86	Irrecoverable arrears	The 25th meeting of general manager's office in 2019	No
Shijiazhuang Yiwanjia Property Service Co., Ltd. (Runlong Real Estate)	Heat charge	411,887.18	Irrecoverable arrears	The 25th meeting of general manager's office in 2019	No
Hostel of Hebei Trade Department	Heat charge	21,801.27	Irrecoverable arrears	The 25th meeting of general manager's office in 2019	No
Shijiazhuang Yaochen Real Estate Development Co., Ltd.	Heat charge	187,410.12	Irrecoverable arrears	The 25th meeting of general manager's office in 2019	No
Shijiazhuang No. 2 Textile Warp Knitting Factory	Heat charge	126,042.03	Irrecoverable arrears	The 25th meeting of general manager's office in 2019	No
Shijiazhuang No. 2 Wool Spinning Factory	Heat charge	43,777.06	Irrecoverable arrears	The 25th meeting of general manager's office in 2019	No
Shijiazhuang Lihua Cotton Weaving Factory	Heat charge	124,367.45	Irrecoverable arrears	The 25th meeting of general manager's office in 2019	No
Shandong Boshan Shenfeng Chemical Equipment Co., Ltd.	Final payment for project	229,920.00	Irrecoverable	Approval by Guizhou Jinyuan	No
Total		30,184,196.87			

8.6.4 Top 5 accounts receivable in terms of their ending balance collected by the debtors

Debtor	Book balance	Proportion in total accounts receivable (%)	Provision for bad debts
State Grid Qinghai Electric Power Company	10,567,286,489.76	20.65	
State Grid Jiangsu Electric Power Co., Ltd.	3,270,372,222.38	6.39	
State Grid Xinjiang Electric Power Company Hami Power Supply Company	1,120,242,304.67	2.19	
State Grid Liaoning Electric Power Supply Co., Ltd.	1,005,313,626.32	1.96	
State Grid Sichuan Electric Power Company	863,153,908.72	1.69	
Total	16,826,368,551.85	32.88	

8.6.5 Derecognized accounts receivable due to the transfer of financial assets

Debtor	Derecognized amount	Gains and losses related to derecognition ("-" for losses)
State Grid Henan Electric Power Company	2,061,118,466.90	-15,181,711.23
State Grid Shanghai Municipal Electric Power Company	1,532,632,924.22	-24,623,934.40
State Grid Xinjiang Electric Power Company Hami Power Supply Company	695,732,358.58	-1,043,598.53
State Grid Shandong Provincial Electric Power Co., Ltd.	600,000,000.00	-1,320,000.00
State Grid Jiangsu Electric Power Co., Ltd.	209,392,998.73	-1,646,835.71
Tongliao Huolinhe Kengkou Power Generation Co., Ltd.	113,358,000.00	-287,801.48
State Grid Xinjiang Electric Power Company Boltala Power Supply Company	112,768,936.83	-195,466.16
State Grid Ningxia Electric Power Co., Ltd.	69,958,324.12	-104,937.49
State Grid Xinjiang Electric Power Co., Ltd. Tacheng Power Supply Company	54,070,183.97	-2,504,192.05
State Grid Xinjiang Electric Power Co., Ltd.	34,226,031.57	-1,786,855.99
Xinyi Sunshine Thermal Power Co., Ltd.	31,076,611.00	-177,758.21
State Grid Xinjiang Electric Power Co., Ltd. Altay Power Supply Company	18,812,905.54	-28,219.35
Jiangsu Xutang Power Generation Co., Ltd.	16,639,221.88	-95,176.35
State Grid Hubei Electric Power Co., Ltd.	14,110,288.07	-704,159.42
Total	5,563,897,251.41	-49,700,646.37

8.7 Receivables financing

Category	Balance as at December 31, 2019	Balance as at January 1, 2019
Notes receivable	16,008,216.00	123,901,507.72
Accounts receivable	2,140,779,557.52	
Total	2,156,787,773.52	123,901,507.72

8.8 Advances to suppliers

8.8.1 Presentation of advances to suppliers by aging

Aging	Amount as at December 31, 2019			Amount as at January 1, 2019		
	Book balance		Provision for bad debts	Book balance		Provision for bad debts
	Amount	Proportion (%)		Amount	Proportion (%)	
Within 1 year (inclusive)	13,597,695,247.46	69.63	6,389,859.01	11,159,911,579.72	62.50	
1-2 years	2,743,624,291.56	14.05	2,869,097.47	3,119,623,423.87	17.47	718,743.01
2-3 years	1,757,339,298.83	9.00	236,533.74	2,500,629,064.73	14.00	41,110,479.96
Over 3 years	1,430,356,543.54	7.32	103,312,991.66	1,076,864,791.70	6.03	112,930,383.74
Total	19,529,015,381.39	100.00	112,808,481.88	17,857,028,860.02	100.00	154,759,606.71

8.8.2 Advances to suppliers with large amount and aging of over 1 year

Creditor	Debtor	Balance as at December 31, 2019	Aging	Reason for failure of settlement
State Nuclear Power Engineering Corp., Ltd.	Curtiss-Wright Electro-MechanicalCorporation	613,658,166.98	1-2 years	Before the settlement period
State Nuclear Power Engineering Corp., Ltd.	Curtiss-Wright Electro-MechanicalCorporation	346,928,335.93	Over 3 years	Before the settlement period
State Nuclear Power Engineering Corp., Ltd.	WESTINGHOUSEELECTRICCOMPANY	493,086,723.50	1-2 years	Before the settlement period
State Nuclear Power Engineering Corp., Ltd.	WESTINGHOUSEELECTRICCOMPANY	273,905,326.67	Over 3 years	Before the settlement period
CPI Power Engineering Co., Ltd.	China Nuclear Industry Fifth Construction Co., Ltd.	99,083,139.24	2-3 years	Before the settlement period
CPI Power Engineering Co., Ltd.	Harbin Electric Co., Ltd.	81,357,521.39	2-3 years	Before the settlement period
SPIC Mengdong Energy Co., Ltd.	Qingdao Dezheng Resources Holdings Limited	75,490,439.14	Over 5 years	Not settled yet
CPI Aluminum International Trading Co., Ltd.	Qingdao Yida Mining Co., Ltd.	72,765,000.00	Over 3 years	Failure to be settled in time due to problems on notes
State Nuclear Power Engineering Corp., Ltd.	MIRIONTECHNOLOGIES (MGPI)SA	62,022,614.41	Over 3 years	Before the settlement period
CLP (Chengdu) Comprehensive Energy Co., Ltd.	Southwest Electric Power Design Institute Co., Ltd. of China Power Engineering Consulting Group	38,011,319.20	2-3 years	Project not completed
China Power Investment	Hebei Jielv Wind Power Equipment Co.,	36,600,815.00	1-2 years	Goods undelivered

Creditor	Debtor	Balance as at December 31, 2019	Aging	Reason for failure of settlement
Corporation Supplies and Equipment Branch	Ltd.			
Shanxi Shentou Power Co., Ltd.	China Huaneng Group Co., Ltd.	34,453,137.37	Over 5 years	Failure to meet conditions for settlement
Huaian Dongfang Yuanshun Real Estate Co., Ltd.	Hunan Jinchi Landscaping Co., Ltd.	32,560,000.00	Over 5 years	Waiting for final audit of the government
Pingdingshan Yaomeng Power Generation Co., Ltd.	Pingdingshan Heating Group Heat Supply Co., Ltd.	30,000,000.00	1-2 years	Failure to meet conditions for settlement
SPIC Yunnan International Power Investment Co., Ltd.	Royal Victory Service Co., Ltd.	26,148,106.51	1-4 years	Not completed
China Power Investment Corporation Supplies and Equipment Branch	Shanxi Jinrui High Pressure Ring Co., Ltd.	23,151,526.10	1-3 years and 4-5 years	Goods undelivered
SPIC Yunnan International Power Investment Co., Ltd.	Shanghai Baoye Group Corp., Ltd.	22,013,000.00	1-2 years	Not completed
SPIC Jiangxi Electric Power Co., Ltd.	Ningbo Construction Engineering Group Co., Ltd.	17,225,720.00	1-2 years	Failure to meet conditions for settlement
Guizhou Jinhe Nengda International Trade Co., Ltd.	Ronglian Tenancy Co., Ltd.	13,548,508.96	Over 3 years	Contract unfinished
Pingdingshan Yaomeng Power Generation Co., Ltd.	Pingdingshan Zhongfang Property Service Co., Ltd.	13,000,000.00	1-2 years	Failure to meet conditions for settlement
Pingdingshan Yaomeng Power Generation Co., Ltd.	Finance Bureau of Shangqiu City	12,960,000.00	4-5 years	Failure to meet conditions for settlement
SPIC Northeast Electric Power Co., Ltd.	Huaneng Power International, Inc. Dalian Power Plant	12,000,000.00	1-3 years	Unsettled
Guizhou Wuchuan Yuanda Environmental Protection Co., Ltd.	Hangzhou Liyuan Power Generation Equipment Co., Ltd.	10,308,000.00	1-2 years and 2-3 years	Contract unfinished
Total		2,440,277,400.40		

8.8.3 Top 5 advances to suppliers in terms of the ending balance collected by debtors

Debtor	Book balance	Proportion in total advances to suppliers (%)	Provision for bad debts
WESTINGHOUSE ELECTRIC COMPANY	1,578,196,164.18	8.08	
Curtiss-Wright Electro-Mechanical Corporation	1,160,371,091.47	5.94	
Harbin Electric Co., Ltd.	789,695,841.39	4.04	
Envision Energy Co., Ltd.	480,065,000.00	2.46	
Shanxi Industrial Equipment Installation Group Co., Ltd.	971,819,991.60	4.98	
Total	4,980,148,088.64	25.50	

8.9 Other receivables

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Interest receivable	298,454,297.30	330,710,884.80
Dividends receivable	318,354,696.89	238,562,386.97
Other receivables	19,039,979,272.20	13,232,032,363.18
Total	19,656,788,266.39	13,801,305,634.95

8.9.1 Interest receivable

Classification of interest receivable

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Fixed-term deposit	49,782.74	8,635,217.45
Entrusted loans	133,960,953.35	154,747,886.15
Others	164,443,561.21	167,327,781.20
Total	298,454,297.30	330,710,884.80

8.9.2 Dividends receivable

Item	Balance as at December 31, 2019	Balance as at January 1, 2019	Reason for unrecovery	Whether the dividends are impaired or not, and the judgment basis.
Dividends receivable with aging less than 1 year	126,792,309.92	57,322,822.83		
Including: (1) Chongqing Tongxing Rubbish Treatment Co., Ltd.		2,913,445.26	Not yet paid	No / in normal operation without impairment
(2) Shanghai Donghai Wind Power	28,050,907.57		Not yet paid	No / in normal operation without

Item	Balance as at December 31, 2019	Balance as at January 1, 2019	Reason for unrecovery	Whether the dividends are impaired or not, and the judgment basis.
Generation Co., Ltd.				impairment
(3) Jarud Banner Tiejin Transportation Co., Ltd.	42,161,000.00	23,267,313.41	Not yet paid	No / in normal operation without impairment
(4) Inner Mongolia Ludian Mengyuan Electric Power Engineering Co., Ltd.		450,000.00	Not yet paid	No / in normal operation without impairment
(5) Shanghai Yishan New Energy Technology Co., Ltd.	45,854,000.00		Not yet paid	No / in normal operation without impairment
(6) POWERCHINA Shanghai Electric Power Engineering Co., Ltd.		12,575,664.16	Not yet paid	No / in normal operation without impairment
(7) Libo Lidu Hydropower Development Co., Ltd.	7,000,000.00		Not yet paid	No / in normal operation without impairment
(8) Guizhou Beipanjiang Electric Power Co., Ltd.		18,116,400.00	Not yet paid	No / in normal operation without impairment
(9) (Dongteng) Fuxin Shengming Thermoelectricity Co., Ltd.	3,726,402.35		Not yet paid	No / in normal operation without impairment
Dividends receivable with aging over 1 year	191,562,386.97	181,239,564.14		
Including: (1) Jarud Banner Tiejin Transportation Co., Ltd.	117,167,588.01	140,900,274.60	Not yet paid	No / in normal operation without impairment
(2) Inner Mongolia Ludian Mengyuan Electric Power Engineering Co., Ltd.	450,000.00		Not yet paid	No / in normal operation without impairment
(3) Xi'an Institute	10,548,000.00	10,548,000.00	Not yet	No / in normal

Item	Balance as at December 31, 2019	Balance as at January 1, 2019	Reason for unrecovery	Whether the dividends are impaired or not, and the judgment basis.
of Crystal Growing Technology Co., Ltd.			paid	operation without impairment
(4) POWERCHINA Shanghai Electric Power Engineering Co., Ltd.	12,575,664.16		Not yet paid	No / in normal operation without impairment
(5) Guizhou Dafang Power Generation Co., Ltd.	18,139,906.40	18,139,906.40	Not yet paid	No / in normal operation without impairment
(6) (Dongteng) Fuxin Shengming Thermoelectricity Co., Ltd.	11,651,383.14	11,651,383.14	Not yet paid	No / in normal operation without impairment
(7) Chongqing Tongxing Rubbish Treatment Co., Ltd.	2,913,445.26		Not yet paid	No / in normal operation without impairment
(8) Guizhou Beipanjiang Electric Power Co., Ltd.	18,116,400.00		Not yet paid	No / in normal operation without impairment
Total	318,354,696.89	238,562,386.97		

8.9.3 Other receivables

Category	Amount as at December 31, 2019			Amount as at January 1, 2019		
	Book balance	Provision for bad debts	Book value	Book balance	Provision for bad debts	Book value
Companies that have not yet implemented the New Standards for Financial Instruments	16,433,397,096.71	712,643,473.83	15,720,753,622.88	12,144,520,709.62	695,978,009.19	11,448,542,700.43
Companies that have implemented the New Standards for Financial Instruments	3,521,282,337.28	202,056,687.96	3,319,225,649.32	2,014,710,736.75	231,221,074.00	1,783,489,662.75
Total	19,954,679,433.99	914,700,161.79	19,039,979,272.20	14,159,231,446.37	927,199,083.19	13,232,032,363.18

(1) Disclosure of other receivables by category

Companies that have not yet implemented the New Standards for Financial Instruments

Category	Amount as at December 31, 2019				Amount as at January 1, 2019			
	Book balance		Provision for bad debts		Book balance		Provision for bad debts	
	Amount	Proportion (%)	Amount	Proportion (%)	Amount	Proportion (%)	Amount	Proportion (%)
Other receivables with individually significant amount and individual provision for bad debts	338,220,743.63	2.06	302,504,401.07	89.44	219,005,809.40	1.80	200,215,628.35	91.42
Other receivables with provision for bad debts accrued by	16,000,047,459.56	97.36	322,448,829.88	2.02	11,809,527,756.67	97.24	392,978,957.84	3.33

Category	Amount as at December 31, 2019				Amount as at January 1, 2019			
	Book balance		Provision for bad debts		Book balance		Provision for bad debts	
	Amount	Proportion (%)	Amount	Proportion (%)	Amount	Proportion (%)	Amount	Proportion (%)
credit risk features portfolio								
Other receivables with individually insignificant amount and individual provision for bad debts	95,128,893.52	0.58	87,690,242.88	92.18	115,987,143.55	0.96	102,783,423.00	88.62
Total	16,433,397,096.71	100.00	712,643,473.83		12,144,520,709.62	100.00	695,978,009.19	

1) Other receivables with individually significant amount and individual provision for bad debts as at December 31, 2019

Debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
CPI Xinjiang Energy Chemical Group Hami Alkali Industry Co., Ltd.	86,393,848.36	86,393,848.36	Over 4 years	100.00	Expected to be uncollectible
Xinjiang Wusu Xinhong Chemical Co., Ltd.	56,593,055.86	56,593,055.86	Over 5 years	100.00	Expected to be uncollectible
Bankruptcy liquidation manager of CPI Xinjiang Energy Chemical Group Hami Alkali Industry Co., Ltd.	29,494,235.57	29,494,235.57	3 years	100.00	Expected to be uncollectible
Liaoning Power Plant Power Construction and Installation Company	27,253,145.07	1,500,000.00	Over 5 years	5.50	Expected to be partially irrecoverable
Yunnan Qujing Yuegang Holding Group Co., Ltd.	25,125,600.00	25,125,600.00	3-4 years	100.00	Expected to be uncollectible
Yunnan Hengan Electric Metallurgy Co., Ltd.	23,620,776.98	23,620,776.98	3 years	100.00	Expected to be uncollectible
Qingdao Decheng Mining Co., Ltd.	22,268,624.51	22,268,624.51	Over 5 years	100.00	Expected to be irrecoverable
Huaian Qingan Jiahe Investment Co., Ltd.	15,000,000.00	15,000,000.00	Over 5 years	100.00	Expected to be uncollectible
Holingol Junlong Earthwork Engineering Co., Ltd. (Wu Yuanjun)	14,842,035.42	14,842,035.42	2-3 years and over 5 years	100.00	Expected to be uncollectible
Tongliao Electric Power Construction and Installation Co., Ltd.	14,391,421.86	4,428,224.37	Over 5 years	30.77	Expected to be partially irrecoverable
Xinjiang Kunlun Tire Co., Ltd.	13,238,000.00	13,238,000.00	Over 5 years	100.00	Expected to be uncollectible
Beijing Sanhe Xingyuan Trading Co., Ltd.	10,000,000.00	10,000,000.00	Over 5 years	100.00	Expected to be uncollectible
Total	338,220,743.63	302,504,401.07			

2) Other receivables with provision for bad debts accrued by credit risk features portfolio

① Other receivables with provision for bad debts made with aging analysis method

Aging	Amount as at December 31, 2019			Amount as at January 1, 2019		
	Book balance		Provision for bad debts	Book balance		Provision for bad debts
	Amount	Proportion (%)		Amount	Proportion (%)	
Within 1 year (inclusive)	733,147,609.11	67.19	27,391,794.69	548,492,029.38	52.35	4,068,916.05
1-2 years	59,789,831.49	5.48	3,074,977.90	100,955,254.36	9.64	10,702,985.48

Aging	Amount as at December 31, 2019			Amount as at January 1, 2019		
	Book balance		Provision for bad debts	Book balance		Provision for bad debts
	Amount	Proportion (%)		Amount	Proportion (%)	
2-3 years	8,475,064.18	0.78	5,650,151.73	29,834,796.60	2.85	14,918,898.32
Over 3 years	289,714,375.08	26.55	286,331,905.56	368,271,323.63	35.16	363,288,157.99
Total	1,091,126,879.86	100.00	322,448,829.88	1,047,553,403.97	100.00	392,978,957.84

② Other receivables with provision for bad debts made with other combination methods

Name of portfolio	Amount as at December 31, 2019			Amount as at January 1, 2019		
	Book balance	Proportion of provision (%)	Provision for bad debts	Book balance	Proportion of provision (%)	Provision for bad debts
Risk-free portfolio	14,908,920,579.70			10,761,974,352.70		
Total	14,908,920,579.70			10,761,974,352.70		

3) Other receivables with individually insignificant amount and individual provision for bad debts as at December 31, 2019

Debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
Dayuanjian Lawn Xingjin Material Supply Station	8,800,000.00	8,800,000.00	Over 5 years	100.00	Expected to be recovered
Henan Wushe Thermal Power Co., Ltd.	8,412,815.11	8,412,815.11	Over 5 years	100.00	Expected to be uncollectible
Land Consolidation, Reclamation and Development Project Office of Wutai County Land & Resources Bureau	8,000,000.00	7,400,000.00	3-4 years and over 5 years	92.50	Expected to be partially uncollectible
Guizhou Longshengxing	7,255,826.84	7,255,826.84	5 years	100.00	Expected to be uncollectible
People's Court of Wuzhong City	5,400,000.00	5,400,000.00	Over 5 years	100.00	Expected to be uncollectible
Hu Jinlong	4,787,800.00	957,560.00	Within 1 year	20.00	Expected to be partially uncollectible
Fushun Electric Power Jian'an Company	4,094,931.42	4,094,931.42	Over 3 years	100.00	Expected to be uncollectible
Geological Environment Restoration and Management Office of Wutai County Land & Resources Bureau	4,000,000.00	3,520,000.00	Over 4 years	88.00	Expected to be partially uncollectible
Xinjiang Kunlun Engineering Tire Co., Ltd.	3,626,708.43	3,626,708.43	Over 5 years	100.00	Expected to be uncollectible
Guangyuan Preparatory Office	3,178,020.68	3,178,020.68	2-3 years	100.00	Expected to be uncollectible
Hunan Hantao Energy Company	3,054,275.50	3,054,275.50	Over 5 years	100.00	Expected to be uncollectible
People's Court	2,750,000.00	834,679.00	Over 5	30.35	Expected to

Debtor	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
of Changping District, Beijing			years		be partially uncollectible
Guizhou Yunzhilong Electric Coal Transportation Investment Co., Ltd.	2,257,293.05	2,257,293.05	2-5 years	100.00	Expected to be uncollectible
Lishejiang planning upfront fee	2,011,532.90	2,011,532.90	Over 5 years	100.00	Expected to be uncollectible
Nanhua Garden electricity charge	1,880,520.04	1,880,520.04	2-3 years	100.00	Expected to be uncollectible
Fuxin Gaohai Mining Co., Ltd.	1,559,900.00	1,559,900.00	3-4 years	100.00	Expected to be uncollectible
Anhui Electric Power Company	1,500,000.00	1,500,000.00	Over 5 years	100.00	Expected to be uncollectible
Nanhua Garden water charge	1,229,242.49	1,229,242.49	2-3 years	100.00	Expected to be uncollectible
Former shareholders of Sikeshu Company	1,115,500.00	1,115,500.00	Over 5 years	100.00	Expected to be uncollectible
Shanxi Yuncheng Anrui Energy Saving Fan Co., Ltd.	1,074,000.00	1,074,000.00	Over 5 years	100.00	Expected to be uncollectible
Landscaping Bureau of Songshan District, Chifeng	1,000,000.00	800,000.00	4-5 years	80.00	Expected to be partially uncollectible
Sub-total	18,140,527.06	17,727,437.42		96.98	Expected to be partially uncollectible
Total	95,128,893.52	87,690,242.88			

Companies that have implemented the New Standards for Financial Instruments

Category	Amount as at December 31, 2019					Amount as at January 1, 2019				
	Book balance		Provision for bad debts		Book value	Book balance		Provision for bad debts		Book value
	Amount	Proportion (%)	Amount	Proportion of provision (%)		Amount	Proportion (%)	Amount	Proportion of provision (%)	
Provision for bad debts made on a single basis	133,810,317.85	3.80	132,844,785.21	99.28	965,532.64	88,367,256.22	4.39	86,173,330.79	97.52	2,193,925.43
Including: accounts receivable with significant single amount and individual provision for bad debts	106,328,624.42		106,328,624.42	100.00		60,288,189.32		60,288,189.32	100.00	
Accounts receivable with individually insignificant amount and individual provision for bad debts	27,481,693.43		26,516,160.79	96.49	965,532.64	28,079,066.90		25,885,141.47	92.19	2,193,925.43
Provision for bad debts made on a portfolio basis	3,387,472,019.43	96.20	69,211,902.75	2.04	3,318,260,116.68	1,926,343,480.53	95.61	145,047,743.21	7.53	1,781,295,737.32
Including: risk-free portfolio	217,162,633.51				217,162,633.51	132,216,466.56				132,216,466.56
Credit risk portfolio	3,170,309,385.92		69,211,902.75	2.18	3,101,097,483.17	1,794,127,013.97		145,047,743.21	8.08	1,649,079,270.76
Total	3,521,282,337.28	100.00	202,056,687.96		3,319,225,649.32	2,014,710,736.75	100.00	231,221,074.00		1,783,489,662.75

1) Other receivables with provision for bad debts made on portfolio basis

Name	Amount as at December 31, 2019			
	Book balance	Provision for bad debts	Proportion of provision (%)	Reason for provision
Shanghai Fengneng Electric Power Co., Ltd.	46,040,435.10	46,040,435.10	100.00	Expected to be uncollectible
People's Government of Xinhua County	27,132,000.00	27,132,000.00	100.00	Expected to be uncollectible
Citibank	17,323,895.17	17,323,895.17	100.00	Expected to be uncollectible
Central enterprise funds managed by SASAC	15,832,294.15	15,832,294.15	100.00	Expected to be uncollectible
Qingdao Dezheng Resources Holdings Limited	9,201,638.48	9,201,638.48	100.00	Expected to be uncollectible
Misawa International Co., Ltd.	4,899,374.70	4,899,374.70	100.00	Expected to be uncollectible
Yu Yong	3,403,681.90	3,403,681.90	100.00	Expected to be uncollectible
Jilin Wanhao Real Estate Development Co., Ltd.	2,192,080.00	2,192,080.00	100.00	Expected to be uncollectible
Bank of China	2,062,893.35	2,062,893.35	100.00	Expected to be uncollectible
KIS Corporation	1,922,580.00	961,290.00	50.00	Expected to be partially uncollectible
Shanghai Electric Australia Power & Energy Development Pty Ltd	823,731.65	823,731.65	100.00	Expected to be uncollectible
Tian Jun	772,150.00	772,150.00	100.00	Expected to be uncollectible
Case Filing Chamber of People's Court of Holingol City	665,848.51	665,848.51	100.00	Expected to be uncollectible
Jianhua Staff	325,331.27	325,331.27	100.00	Expected to

Name	Amount as at December 31, 2019			
	Book balance	Provision for bad debts	Proportion of provision (%)	Reason for provision
Dormitory				be uncollectible
Shijiazhuang Dehong Coal Co., Ltd.	189,552.67	189,552.67	100.00	Expected to be uncollectible
Lanzhou Xigu Thermal Power Co., Ltd.	180,150.00	180,150.00	100.00	Expected to be uncollectible
Shenyang Feihongda Energy Saving Equipment Technology Development Co., Ltd.	112,800.00	112,800.00	100.00	Expected to be uncollectible
Shanxi Sanggan River Poplar High Yield Forest Experimental Bureau	100,000.00	100,000.00	100.00	Expected to be uncollectible
Shagang Power Plant	100,000.00	100,000.00	100.00	Expected to be uncollectible
Sub-total	529,880.90	525,638.26	99.20	Expected to be partially uncollectible
Total	133,810,317.85	132,844,785.21		

2) Other receivables with provision for bad debts made on portfolio basis
Items subject to provision made on portfolio basis

Name	Amount as at December 31, 2019			Amount as at January 1, 2019		
	Book balance	Provision for bad debts	Proportion of provision (%)	Book balance	Provision for bad debts	Proportion of provision (%)
Including: low-risk portfolio	217,162,633.51			132,216,466.56		
Credit risk portfolio	3,170,309,385.92	69,211,902.75	2.18	1,794,127,013.97	145,047,743.21	8.08
Total	3,387,472,019.43	69,211,902.75		1,926,343,480.53	145,047,743.21	

(2) Provision for bad debts recovered or reversed

Debtor	Amount recovered or reversed	Accumulated provision for bad debts before the reversal or recovery	Reason and method for reversal or recovery
Shenyang Beichen Hotel	200,000.00	200,000.00	Recovered in monetary funds
Shenyang Electric	200,000.00	200,000.00	Recovered in monetary

Debtor	Amount recovered or reversed	Accumulated provision for bad debts before the reversal or recovery	Reason and method for reversal or recovery
Machinery Factory			funds
Total	400,000.00	400,000.00	

(3) Other receivables actually written off in the reporting period

Debtor	Nature of other receivables	Written-off amount	Reasons for written-off	Verification procedures performed	Whether it is due to the related party transactions
Others	Personal loans and final payment for project	1,781,360.45	Irrecoverable	Party Committee	No
Resettlement fees paid on behalf of original shareholders	Resettlement fees	120,000.00	Wrong recording	General Manager's Office	No
Xichang Electric Power Bureau	Current amounts	22,000.00	Irrecoverable	General Manager's Office	No
Jiangxi Coal Industry Research Institute	Current accounts between entities	727.00			No
Jiangxi Xunhui Environmental Protection Technology Co., Ltd.	Current accounts between entities	9,068.65			No
Nanchang Power Plant Community Office Building	Current accounts between entities	12,511.99			No
Huazhong University of Science and Technology	Current accounts between entities	30,000.00			No
Nanchang Guangming School	Current accounts between entities	37,767.60			No
Jiangxi Material Storage and Transportation Co., Ltd.	Current accounts between entities	100,000.00			No
Yima Coal Industry (Group) Co., Ltd.	Current accounts between entities	147,336.57			No
Xinyu Iron and Steel Works	Current accounts between entities	277,169.52			No
Prepayments to Guodian Jiujiang Power Generation Co.,Ltd.	Current accounts between entities	225,290.95			No
Xincheng Glass Factory	Current accounts between entities	8,941.69		Reported to the parent company for record and approved by the Director 's Office, and a special audit report issued by Xinyong Zhonghe Certified Public Accountants (Special General Partnership) Wuhan Branch	No
Jiangxi Hotel Washing Center (Hongkun Company)	Current accounts between entities	309,494.30			No
Nanchang Municipal Demolition Bureau	Current accounts between entities	9,198.80			No
Nanchang Railway Nanchang South Station	Current accounts between entities	2,500.00			No
Nanchang Changli Iron & Steel Co., Ltd.	Current accounts between entities	2,483.60	Irrecoverable due to funds left over by history		No
South Railway	Current accounts	25,100.00			No

Debtor	Nature of other receivables	Written-off amount	Reasons for written-off	Verification procedures performed	Whether it is due to the related party transactions
West Station	between entities				
Qingshan Road Office	Current accounts between entities	30,000.00			No
Establishment of the Department of Foreign Economic and Technical Cooperation	Current accounts between entities	30,000.00			No
Zhongfang Decoration Company	Current accounts between entities	28,217.32			No
China Power Engineering Industry Co., Ltd.	Current accounts between entities	20,320.17			No
Personal petty cash	Petty cash	341,469.78			No
Chang Yan	Embezzlement of public funds	28,125,671.34			No
Balance of pension insurance (individual)	Balance of pension insurance (individual)	5,811.68			No
State Grid Liaoning Electric Power Supply Co., Ltd. Construction Department	Current amounts	500,000.00	Irrecoverable	Write-off report	No
Liaoning Electric Power Central Hospital	Current amounts	2,000,000.00	Irrecoverable	Write-off report	No
Wind Power Office of Shenyang Electric Power Bureau	Current amounts	80,000.00	Irrecoverable	Approval by the management	No
Dongdian Industrial Corporation	Current amounts	483,148.00	Irrecoverable	Approval by the management	No
Haicheng Juvenile Prison	Current amounts	120,000.00	Irrecoverable	Write-off report	No
Haicheng Energy Company	Current amounts	700,000.00	Irrecoverable	Write-off report	No
Dalian Sanchuan Zhongtian Chemical Factory	Current amounts	650,000.00	Irrecoverable	Write-off report	No
Guizhou Guihang Nengfa Equipment Manufacturing Co., Ltd.	Current amounts	46,402,146.75	Irrecoverable	Approval by Guizhou Jinyuan	No
Tongliao People's Government	Borrowings	2,000,000.00	Irrecoverable	Resolution of the Party Committee	No
Finance bureau of cities and counties of Zhejiang Province	New energy subsidies provided by cities and counties of Zhejiang	4,432,172.48	Expected to be uncollectible	General Manager's Office	No
Wall Renovation Fund Office of Changxing County, Huzhou City, Zhejiang	Expenditure on infrastructure cement and wall renovation	138,723.37	Expected to be uncollectible	General Manager's Office	No
Honghu Non-tax Revenue Administration	Bid bond	800,000.00	Confirmed irrecoverable	Evaluating the preliminary work of the project, determining the costs and losses incurred in the preliminary work, perform	No

Debtor	Nature of other receivables	Written-off amount	Reasons for written-off	Verification procedures performed	Whether it is due to the related party transactions
				the audit procedures in accordance with the relevant provisions, and submit the same for instructions on file-record and verification	
Shijiazhuang Thermal Power Energy Saving Project Development Department	Project payment	94,940.80	Cancellation of the other party	Minutes of Special Meeting of the Finance Department [2019] No.6	No
Shijiazhuang Tiantong Group Co., Ltd.	Loan guarantee	16,260,308.78	Confirmed irrecoverable	Approval by General Manager's Office	No
Beijing Zhidong International Investment Management Co., Ltd.	Security deposit	11,700.00	Irrecoverable for overdue payment	Approved by leaders	No
Zhongyan Energy Equity Investment Project	Security deposit	12,850.00	Irrecoverable for overdue payment	Approved by leaders	No
Sub-total of other small current accounts	Current amounts	7,781,687.85	Unable to check the account because the account age is more than 20 years and the account book has been destroyed	Changchun Jiashi Certified Public Accountants issued the special audit reports CJSZSZ [2019] No. 458 and CJSZSZ [2019] No. 461. Tonghua Thermal Power Co., Ltd. and Erdaojiang Power Generation Co., Ltd. issued the Statement of Profit and Loss from Disposal of Receivables approved by the 8th meeting of the Party Committee of Tonghua Thermal Power Co., Ltd. in 2019	No
Total		114,170,119.44			

(4) Top 5 of other receivables in terms of ending balance collected by the debtors

Debtor	Nature	Book balance	Aging	Proportion in total other receivables (%)	Provision for bad debts
Urumqi Guoyuan Energy Management Co., Ltd.	Payment for equity transfer	4,151,281,854.43	1-2 years	20.80	
Inner Mongolia Menglun Energy Management Co., Ltd.	Payment for equity transfer	1,253,600,000.00	Within 1 year	6.28	
Ulanqab project deposit	Security deposit	1,000,000,000.00	1-2 years	5.01	
Qinghai Economic and Information Technology Commission	Security deposit	287,376,323.00	3-5 years	1.44	
Shanghai Yangdian Energy &Environment Technology Co., Ltd.	Advance payment for land	568,805,992.74	1-2 years	2.85	
Total		7,261,064,170.17		36.38	

8.10 Financial assets purchased under resale agreements

8.10.1 By object

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Bonds		33,600,523.00
Less: provision for impairment		
Total		33,600,523.00

8.10.2 By business

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Pledge-style repo of bonds		33,600,523.00
Total		33,600,523.00

8.10.3 By counterparty

Counterparty	Balance as at December 31, 2019	Balance as at January 1, 2019
Non-bank financial institutions		33,600,523.00
Total		33,600,523.00

8.10.4 By remaining period of margin financing

Term	Balance as at December 31, 2019	Balance as at January 1, 2019
Within one month		33,600,523.00
Total		33,600,523.00

8.11 Inventories

8.11.1 Classification of inventories

Item	Amount as at December 31, 2019			Amount as at January 1, 2019		
	Book balance	Provision for depreciation	Book value	Book balance	Provision for depreciation	Book value
Raw materials	9,798,283,939.78	401,248,890.41	9,397,035,049.37	8,517,903,546.48	200,255,810.35	8,317,647,736.13
Self-manufactured semi-finished products and goods in process	10,688,753,980.98	381,057,191.04	10,307,696,789.94	10,019,751,218.96	350,919,760.72	9,668,831,458.24
Including: completed and unsettled projects (to be filled out by the enterprises that implement the Standards for Construction Contracts)	6,500,694,097.97	487,807.45	6,500,206,290.52	6,536,107,044.56		6,536,107,044.56
Stock commodities (finished goods)	2,868,072,791.02	265,742,749.72	2,602,330,041.30	3,843,161,447.88	88,033,978.96	3,755,127,468.92
Circulating materials (packaging materials, low-cost consumables, etc.)	47,993,247.01		47,993,247.01	17,234,908.77		17,234,908.77
Others	512,042,671.85	988,382.47	511,054,289.38	675,185,431.24	100,096.00	675,085,335.24
Total	23,915,146,630.64	1,049,037,213.64	22,866,109,417.00	23,073,236,553.33	639,309,646.03	22,433,926,907.30

8.11.2 The capitalized amount of borrowing costs in the balance of inventories as at December 31, 2019 shall be disclosed.

Item	Balance as at December 31, 2019
Nanhua Garden Phase II	94,755,834.67
Comprehensive development project of Huaiyin Ancient Huanghe Ecological Wetland Park and its surrounding land	94,374,548.49
Qili Binjiang Project	12,999,965.05
Liupanshui Nadian Home Project	10,726,429.20
Total	212,856,777.41

8.11.3 Assets completed but not settled in the construction contracts as at December 31, 2019

Item	Balance as at December 31, 2019
Cost accumulatively incurred	63,638,151,683.41
Gross profit accumulatively recognized	3,067,557,825.02
Less: estimated losses	487,807.45
Amount already settled	60,205,015,410.46
Completed but unsettled assets formed in construction contract	6,500,206,290.52

8.12 Contract assets

Item	Balance as at December 31, 2019			Balance as at January 1, 2019		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Revenue recognized from the subsidies for photovoltaic power, wind power and other new energy not yet included in the Category of the National Energy	5,129,726,602.69		5,129,726,602.69	311,539,521.13		311,539,521.13

Item	Balance as at December 31, 2019			Balance as at January 1, 2019		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Administration						
Undisclosed net income from thermal power projects in the fourth quarter	376,362,083.51		376,362,083.51	2,504,880,472.02		2,504,880,472.02
Total	5,506,088,686.20		5,506,088,686.20	2,816,419,993.15		2,816,419,993.15

8.13 Assets held for sale

Category	Balance as at December 31, 2019	Balance as at January 1, 2019
Assets classified as held for sale	21,701,101.43	111,738,863.73
Assets of disposal groups classified as held for sale	4,410,240,030.24	5,356,535,593.30
Total	4,431,941,131.67	5,468,274,457.03

Remark (1): SEP New Energy affiliated to the Company's subsidiary Shanghai Electric Power Co., Ltd. signed an agreement with Concord Wind Power Generation Co., Ltd. (hereinafter referred to as “Concord Wind Power”), Sanming Century Huahao Electric Power Engineering Co., Ltd. and Hai’an Concord Wind Power Generation Co., Ltd., agreeing that SEP New Energy transferred 45% equity held in Hai’an Concord Wind Power Generation Co., Ltd. to Concord Wind Power in a non-public manner at a transfer price of RMB 21,701,100.

Remark (2): On February 5, 2018, Shanxi Shentou Power Co., Ltd. (hereinafter referred to as "Shanxi Shentou"), a subsidiary of the Company's subsidiary China Power International Development Limited, entered into a joint venture contract with several companies including Jiangsu Guoxin to establish a joint venture. The registered capital is RMB 6 billion, in which Jiangsu Guoxin holds 51%, ChinaCoal Pingshuo Coal Company Limited 15%, Tongmei Group 15%, Shanxi Shentou 9.5%, Datang International 5% and Shanxi Yangguang 9.5%. Shanxi Shentou made capital contributions in cash and 80% of the equity in China Power Shentou Power Generating Company Limited (hereinafter referred to as "CP Shentou") .

On February 5, 2018, CP Shentou's cash-generating unit was classified as a disposal group held for sale, which is measured at the lower of the balance between book value and fair value less disposal costs.

In view of this, the management judged that the agreement to be updated is very unlikely to have major adjustments or cancellations compared with the previously signed agreement. The sale is still very likely to occur and can be sold immediately under the current situation. At the end of the year, it continued to meet the definition of division into disposal groups.

At present, the base date of the evaluation is still under negotiation, and the joint venture contract does not agree the vesting of the 80% equity of CP Shentou, which is used for capital contribution, during the transition period. In addition, in the evaluation process, the controlling shareholders expressed different opinions on the selection of parameters such as machine, equipment and outsourced capacity in the asset group held for sale. Considering the oversupply in the Shanxi power market for a long time to come, the situation of sufficient power will not fundamentally change. Joining the Sujin platform will help Shentou Phase II to send power to Jiangsu. China Power will actively communicate with Jiangsu Guoxin with respect to the fair value of the asset group held by CP Shentou for sale, to minimize the difference between the evaluated price and operation and maintenance costs, and strive to eventually join the Sujin platform according to the agreement. Given that China Power actively promotes the resolution disputes, and is expected to eventually reach agreement with Jiangsu Guoxin on the above disputes, as at December 31, 2019, CP Shentou is still deemed as the asset group held for sale.

Main assets of disposal groups classified as held for sale

Category	Balance as at December 31, 2019			Fair value as at December 31, 2019	Estimated disposal cost	Estimated disposal time
	Book balance	Provision for the impairment of assets held for sale	Book value			
Notes receivable	74,000,000.00		74,000,000.00	74,000,000.00	Equity transfer without disposal fees	Negotiating with all the parties on personnel placement
Accounts receivable	168,023,949.63		168,023,949.63	168,023,949.63	Equity transfer without disposal fees	Negotiating with all the parties on personnel placement
Other receivables	77,329,681.68		77,329,681.68	77,329,681.68	Equity transfer without disposal fees	Negotiating with all the parties on personnel placement
Fixed assets	3,758,298,005.63		3,758,298,005.63	3,758,298,005.63	Equity transfer without disposal fees	Negotiating with all the parties on personnel placement
Construction in progress	2,267,249.64		2,267,249.64	2,267,249.64	Equity transfer without disposal fees	Negotiating with all the parties on personnel placement
Deferred tax assets	115,607,531.68		115,607,531.68	115,607,531.68	Equity transfer without disposal fees	Negotiating with all the parties on personnel placement
Total	4,195,526,418.26		4,195,526,418.26	4,195,526,418.26	Equity transfer without disposal fees	Negotiating with all the parties on personnel placement

8.14 Non-current assets maturing within one year

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Loans and advances maturing within one year	2,387,178,185.96	1,691,955,977.94
Long-term receivables maturing within one year	17,475,260,511.69	13,204,013,677.27
Available-for-sale financial assets maturing within one year (old standards apply)	2,499,360,000.00	471,377,391.79
Creditor's right investment maturing within one year (new standards apply)	1,547,527,704.05	
Time deposits maturing within one year	11,605,000.00	
Trust products and asset management plans maturing within one year		144,660,037.00
Medium-term notes maturing within one year	500,000,000.00	
Entrusted loans	12,000,000.00	
Others	552,728,563.76	126,060,375.02
Total	24,985,659,965.46	15,638,067,459.02

8.15 Other current assets

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Entrusted loans (short-term)	535,392,486.83	80,474,782.50
Prepaid income tax	366,071,952.30	328,320,907.96
Input tax not deducted	13,596,698,577.07	11,615,666,356.35
Overpaid VAT	179,291,867.22	190,889,982.74
Other overpaid taxes	35,372,526.70	72,432,807.03
Others	4,352,498,550.19	3,877,163,639.89
Total	19,065,325,960.31	16,164,948,476.47

8.16 Loans and advances

8.16.1 Loans and advances classified by individual and enterprise distribution

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Corporate loans and advances	699,650,094.05	5,371,023,791.16
- Loans	699,650,094.05	5,371,023,791.16
Total loans and advances	699,650,094.05	5,371,023,791.16
Less: provision for loan loss	47,882,996.59	8,745,034.49
Including: provision made on single basis		
Provision made on portfolio basis	47,882,996.59	8,745,034.49
Book value of loans and advances	651,767,097.46	5,362,278,756.67

8.16.2 Loans classified by industry distribution

Industry distribution	Balance as at December 31, 2019	Proportion (%)	Balance as at January 1, 2019	Proportion (%)
Power Industry	699,650,094.05	100.00	5,371,023,791.16	100.00
Total loans	699,650,094.05	100.00	5,371,023,791.16	100.00

Industry distribution	Balance as at December 31, 2019	Proportion (%)	Balance as at January 1, 2019	Proportion (%)
and advances				
Less: provision for loan loss	47,882,996.59	100.00	8,745,034.49	100.00
Including: provision made on single basis				
Provision made on portfolio basis	47,882,996.59	100.00	8,745,034.49	100.00
Book value of loans and advances	651,767,097.46		5,362,278,756.67	

8.17 Creditor's right investment

8.17.1 Creditor's right investment

Item	Balance as at December 31, 2019			Balance as at January 1, 2019		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Entrusted loans	220,000,000.00		220,000,000.00	220,000,000.00		220,000,000.00
Bank of China Limited Small and Micro Enterprises Loans Special Financial Bond 2019 01	200,480,821.92		200,480,821.92			
Trust plan	686,514,130.14	109,257,445.64	577,256,684.50	2,033,992,805.67	289,767,344.49	1,744,225,461.18
Others	50,781,364.72	150,949.92	50,630,414.80			
Total	1,157,776,316.78	109,408,395.56	1,048,367,921.22	2,253,992,805.67	289,767,344.49	1,964,225,461.18

8.18 Available-for-sale financial assets

8.18.1 Available-for-sale financial assets

Item	Balance as at December 31, 2019			Balance as at January 1, 2019		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Available-for-sale debt instruments	828,689,045.71		828,689,045.71	1,383,625,800.00		1,383,625,800.00
Available-for-sale equity instruments	7,009,725,533.21	683,223,063.06	6,326,502,470.15	4,820,128,207.60	101,727,844.94	4,718,400,362.66
Including: measured at fair value	1,736,465,606.01	198,522,528.14	1,537,943,077.87	693,201,247.77		693,201,247.77
Measured at cost	5,273,259,927.20	484,700,534.92	4,788,559,392.28	4,126,926,959.83	101,727,844.94	4,025,199,114.89
Others	381,389,773.07		381,389,773.07	3,264,193,115.10		3,264,193,115.10
Total	8,219,804,351.99	683,223,063.06	7,536,581,288.93	9,467,947,122.70	101,727,844.94	9,366,219,277.76

8.18.2 Available-for-sale financial assets measured at fair value as at December 31, 2019

Item	Available-for-sale equity instruments	Available-for-sale debt instruments	Others	Total
Cost of equity instruments/amortized cost of debt instruments	1,121,653,402.93	828,689,045.71	381,389,773.07	2,331,732,221.71
Fair value	1,537,943,077.87	828,689,045.71	381,389,773.07	2,748,021,896.65
Amount of changes in fair value accumulatively included in other comprehensive income	614,812,203.08			614,812,203.08
Amount of provision for impairment	198,522,528.14			198,522,528.14

8.19 Held-to-maturity investments

8.19.1 Held-to-maturity investments

Item	Balance as at December 31, 2019			Balance as at January 1, 2019		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
BOC USD 300 Million Preferred Stock	2,263,009,518.00		2,263,009,518.00	2,064,725,088.00		2,064,725,088.00
MCC USD 50 Million Perpetual Debt	356,030,367.00		356,030,367.00	336,811,540.00		336,811,540.00
China CITIC Bank USD 54 Million Preferred Stock	383,958,188.50		383,958,188.50			
Chinalco USD 50 Million Perpetual Debt	352,507,386.00		352,507,386.00			
CSCII USD 16 Million Perpetual Debt	112,083,535.90		112,083,535.90			
PSBC USD 48 Million Preferred Stock	339,375,910.31		339,375,910.31			
CMBC USD 40 Million Preferred Stock	279,698,181.80		279,698,181.80			
ICBC Asia USD 25 Million Preferred Stock	174,301,752.24		174,301,752.24			
Industry Fund Investment	25,000,000.00		25,000,000.00			
Financial products	4,962,761.04	4,962,761.04		4,962,761.04	4,962,761.04	
Total	4,290,927,600.79	4,962,761.04	4,285,964,839.75	2,406,499,389.04	4,962,761.04	2,401,536,628.00

8.19.2 Important held-to-maturity investments as at December 31, 2019

Bond	Face value	Coupon rate	Real interest rate	Date of maturity
BOC USD 300 Million Preferred Stock	2,058,960,000.00	5.90%	5.90%	2023-9-14
Chinalco USD 50 Million Perpetual Debt	348,810,000.00	4.10%	4.10%	2024-9-11
MCC USD 50 Million Perpetual Debt	343,160,000.00	4.95%	4.95%	2021-5-2
PSBC USD 48 Million Preferred Stock	326,691,957.90	4.50%	5.27%	2022-9-27
CMBC USD 40 Million Preferred Stock	280,260,114.80	4.95%	4.73%	2021-12-14
China CITIC Bank USD 39 Million Preferred Stock	265,796,010.50	4.25%	5.34%	2021-10-11
ICBC Asia USD 25 Million Preferred Stock	171,694,746.30	4.25%	4.95%	2021-7-21
China CITIC Bank USD 15 Million Preferred Stock	114,312,013.20	7.10%	4.64%	2023-11-6
CSCII USD 16 Million Perpetual Debt	111,389,264.40	4.00%	4.05%	2024-12-3
Total	4,021,074,107.10			

8.20 Long-term receivables

Item	Balance as at December 31, 2019			Balance as at January 1, 2019			Range of discount rate as at December 31, 2019
	Book balance	Provision for bad debts	Book value	Book balance	Provision for bad debts	Book value	
Finance lease payment	46,018,991,732.17	837,411,110.73	45,181,580,621.44	31,037,080,715.83	544,732,762.23	30,492,347,953.60	
Including: unrealized financing income							
Installment proceeds from sale of goods	47,021,985.61		47,021,985.61				
Installment proceeds from rendering of services							
Others	10,737,042,660.53	241,511,875.62	10,495,530,784.91	11,473,167,018.81	256,742,693.40	11,216,424,325.41	
Total	56,803,056,378.31	1,078,922,986.35	55,724,133,391.96	42,510,247,734.64	801,475,455.63	41,708,772,279.01	

8.21 Long-term equity investments

8.21.1 Classification of long-term equity investments

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
Investment in subsidiaries	56,170,996.87		50,564.22	56,120,432.65
Investment in joint ventures	15,038,829,783.00	1,571,706,767.20	1,003,486,484.16	15,607,050,066.04
Investment in associates	24,468,732,674.96	4,160,788,273.03	3,580,049,627.41	25,049,471,320.58
Sub-total	39,563,733,454.83	5,732,495,040.23	4,583,586,675.79	40,712,641,819.27
Less: provision for impairment of long-term equity investments	371,596,214.21	1,123,189,492.56	27,408,574.50	1,467,377,132.27
Total	39,192,137,240.62	4,609,305,547.67	4,556,178,101.29	39,245,264,687.00

8.21.2 Details of long-term equity investments

Investee	Investment costs	Balance as at January 1, 2019	Increase or decrease in 2019								Balance as at December 31, 2019	Balance of provision for impairment as at December 31, 2019
			Additional investment	Reduced investment	Investment profit and loss recognized under the equity method	Adjustments to other comprehensive income	Other equity changes	Declared distribution of cash dividends or profit	Provision for impairment	Others		
Total	37,959,453,703.65	39,507,562,457.96	2,115,443,992.71	1,300,484,604.90	2,310,519,735.44	-21,446,876.04	160,204,965.63	2,011,830,071.69	1,123,189,492.56	-103,448,212.49	40,656,521,386.62	1,411,256,699.62
I. Joint ventures	15,071,332,476.19	15,038,829,783.00	818,038,164.52		793,448,209.08	-17,721,947.13		979,660,569.73		-45,883,573.70	15,607,050,066.04	
Russia-China Energy Cooperation Investment Fund Management (Jinan) Co., Ltd.	5,000,000.00	204,518.23	3,500,000.00		-3,704,518.23							
Yunnan Dianneng Luliang Union Thermoelectricity Co., Ltd.	107,265,200.00	41,628,291.42			-8,716,356.95						32,911,934.47	
Baoshan Longchuanjiang Hydropower Development Co., Ltd.	77,000,000.00	77,631,113.28			-10,000,000.00						67,631,113.28	
Xinjiang Zhundong Wucaiwan North 2nd Power Station Co., Ltd.	100,000,000.00	55,000,000.00	45,000,000.00								100,000,000.00	
Shanghai Yangshupu Xinyi Real Estate Development Co., Ltd.	2,151,490,032.44	2,151,490,004.23			19,588,967.67						2,171,078,971.90	
Huaihu Coal Power Generation Co., Ltd.	1,085,760,389.60	1,385,919,013.20	17,406,700.00		54,447,608.80			165,000,000.00			1,292,773,322.00	
Shanghai Yishan New Energy Technology Co., Ltd.	900,000,000.00	912,275,748.48			28,744,664.73			45,854,000.00			895,166,413.21	
Shanghai Waigaoqiao No. 2 Power Generation Co., Ltd.	752,195,110.33	861,969,678.13			60,667,166.43			84,000,000.00			838,636,844.56	
Shanghai Waigaoqiao No. 3 Power Generation Co., Ltd.	729,833,493.03	791,492,603.41			81,180,324.41			132,000,000.00			740,672,927.82	
Shanghai Wujing Power Generation Co., Ltd.	394,136,898.50											
Shanghai Friendship Shipping Co., Ltd.	162,125,500.00	161,979,928.95			32,425.77			1,000,000.00			161,012,354.72	
Zhejiang Zheneng Guodian Investment Shengsi Offshore Wind Power Co.,	150,000,000.00		150,000,000.00								150,000,000.00	

Investee	Investment costs	Balance as at January 1, 2019	Increase or decrease in 2019								Balance as at December 31, 2019	Balance of provision for impairment as at December 31, 2019
			Additional investment	Reduced investment	Investment profit and loss recognized under the equity method	Adjustments to other comprehensive income	Other equity changes	Declared distribution of cash dividends or profit	Provision for impairment	Others		
Ltd.												
SEP Spanish Yiju New Energy Co., Ltd.	11,664.52		11,664.52								11,664.52	
Liaoning Hongyanhe Nuclear Power Co., Ltd.	6,733,994,400.00	6,771,182,303.91	481,271,400.00		482,712,860.80			540,225,616.61		-55,072,622.90	7,139,868,325.20	
SNPTC Zheneng Nuclear Energy Co., Ltd.	111,700,000.00	85,399,133.89	22,500,000.00								107,899,133.89	
Xiangning SPIC New Energy Power Co., Ltd.	45,900,000.00	3,410,000.00	42,490,000.00								45,900,000.00	
Pingyao SPIC New Energy Power Co., Ltd.	17,980,000.00	5,580,000.00	12,400,000.00								17,980,000.00	
Zhongji Guoda Power Technology Jiangsu Co., Ltd.	8,000,000.00	12,840,380.98			463,022.72			617,309.06		-151,359.30	12,534,735.34	
SNPTC-WEC Nuclear Power Technical Services (Beijing) Co,. Ltd.	6,165,400.00				1,366,024.86						1,366,024.86	
Huadian Fuxin SNPTC (Beijing) Energy Co., Ltd.	2,450,000.00	3,328,827.76			435,705.05						3,764,532.81	
C&S Engineering Co., Ltd.	210,176.99	217,857.16			7,194.83						225,051.99	
HLH	563,413,682.78	670,210,706.77			12,771,885.00	-17,835,975.93				8,140,314.75	673,286,930.59	
HLC	98,142,721.02	177,998,701.70			7,417,450.70	114,028.80				2,331,416.23	187,861,597.43	
Hunan Huarun Electric Power Liyujiang Co., Ltd.	331,135,710.48	234,847,037.08			8,854,229.76						243,701,266.84	
Guangzhou China Power Lixin Industry Company Limited	292,000,000.00	400,274,943.53			30,367,159.03			4,701,075.35			425,941,027.21	
China Power Changshu Electricity Distribution Co., Ltd.	80,004,000.00	82,592,544.26			7,686,132.37			2,107,086.11			88,171,590.52	
Henan Zhongping Coal & Power Co., Ltd.	68,319,696.50	70,249,056.03			5,736,700.26						75,985,756.29	
Changshu Binjiang Heat Co., Ltd.	42,140,000.00	69,353,710.65			13,511,918.54			4,155,482.60			78,710,146.59	

Investee	Investment costs	Balance as at January 1, 2019	Increase or decrease in 2019								Balance as at December 31, 2019	Balance of provision for impairment as at December 31, 2019
			Additional investment	Reduced investment	Investment profit and loss recognized under the equity method	Adjustments to other comprehensive income	Other equity changes	Declared distribution of cash dividends or profit	Provision for impairment	Others		
Dongguan Humen Gangli Fengyuan Public Pipe Gallery Co., Ltd.	10,500,000.00	10,500,000.00									10,500,000.00	
SPIC Anhui Conch Power Sales Co., Ltd.	1,000,000.00	1,253,679.95			-122,357.47					-1,131,322.48		
Xiong'an Xingrong Nuclear Power Innovation Center Co., Ltd.	20,000,000.00		20,000,000.00								20,000,000.00	
Hunan Luxin Smart Energy Co., Ltd.	8,000,000.00		8,000,000.00								8,000,000.00	
Tongxin Longyuan Hechuang Electric Power Co., Ltd.	15,458,400.00		15,458,400.00								15,458,400.00	
II. Associates	22,888,121,227.46	24,468,732,674.96	1,297,405,828.19	1,300,484,604.90	1,517,071,526.36	-3,724,928.91	160,204,965.63	1,032,169,501.96	1,123,189,492.56	-57,564,638.79	25,049,471,320.58	1,411,256,699.62
Guangdong Yudean Huaqing Coal Gasification Combined Cycle Power Generation Co., Ltd.	3,500,000.00	3,500,000.00									3,500,000.00	
Shanxi Zhangze Electric Power Co., Ltd.	772,132,549.00	1,592,630,246.72			5,070,226.83				821,917,480.12	-27,408,574.50	1,570,291,899.05	794,508,905.62
Xinjiang Electric Power Complete Equipment Co., Ltd.	450,000.00	421,861.68									421,861.68	421,861.68
China Nuclear Investment Co., Ltd.	31,418,238.24	23,894,884.23	-	-	118,330.49	0.20	-	0.20			24,013,214.72	
Jiangxi United Energy Co., Ltd.	18,000,000.00	7,527,482.50	10,000,000.00		-129,653.53						17,397,828.97	
Jiangxi Ganjiang New District Lvdong Smart Energy Operation Co., Ltd.	4,900,000.00	4,900,000.00			-20,745.22						4,879,254.78	
Fuxin Dayuan Coal Mine Co., Ltd.	184,456,416.79	161,617,743.71			-284,384.33				161,333,359.38		161,333,359.38	161,333,359.38
Fuxin Gaohai Mining Co., Ltd.	83,757,002.19	51,644,877.77			-6,850,021.91		-287.69		44,794,568.17		44,794,568.17	44,794,568.17
Chaoyang Zhongan Water Service Co., Ltd.	28,800,000.00	33,847,877.72			1,341,071.04						35,188,948.76	
Fuxin Shengming Thermal Power Co., Ltd.	22,728,926.23	28,968,817.41			-18,165,287.44			3,726,402.35			7,077,127.62	
Liaoning Guodian	8,000,000.00	9,540,389.00	3,600,000.00		8,415,149.58			1,174,266.67			20,381,271.91	

Investee	Investment costs	Balance as at January 1, 2019	Increase or decrease in 2019								Balance as at December 31, 2019	Balance of provision for impairment as at December 31, 2019
			Additional investment	Reduced investment	Investment profit and loss recognized under the equity method	Adjustments to other comprehensive income	Other equity changes	Declared distribution of cash dividends or profit	Provision for impairment	Others		
Huida Power Technology Co., Ltd.												
Chongqing Tianhong Mining Co., Ltd.	266,459,137.33	103,771,900.29			-31,086,952.74				94,144,084.89	21,459,137.34	94,144,084.89	94,144,084.89
Chongqing Guolong Electric Power Co., Ltd.	208,653,900.00	113,175,920.57			-49,307,227.75					-0.01	63,868,692.81	
Chongqing Tiantai Aluminum Co., Ltd.	171,216,977.51	68,224,100.54			10,088,480.42						78,312,580.96	
Guizhou Xukuang Xinglong Mining Co., Ltd.	130,517,000.00											
Chongqing Shengyu Xinglong Electric Power Co., Ltd.	100,218,633.00	100,218,633.00									100,218,633.00	
Guizhou Zunyi Tuanxi Lvxiang Wind Power Co., Ltd.	39,200,000.00	39,200,000.00			-1,383,857.50						37,816,142.50	
Chongqing Jianhe Stone Powder Co., Ltd.	13,650,000.00	9,033,869.43			8,376.08						9,042,245.51	
Xinjiang Xinhua Chemical Fertilizer Co., Ltd.	151,569,959.57	144,726,954.27			-24,457,209.67						120,269,744.60	
Hami United Chemical Co., Ltd.	6,630,000.00	3,704,395.21									3,704,395.21	3,704,395.21
Chongqing Aijust Co., Ltd.	20,000,000.00	9,585,691.80			-759,830.78						8,825,861.02	
SPIC Liangjiang Yuanda Energy Saving and Environmental Protection Co., Ltd.	18,000,000.00	12,421,275.98	5,600,000.00		2,929,765.82						20,951,041.80	
SPIC Yuanda Zhongxin Energy Saving and Environmental Protection Co., Ltd.	1,250,000.00											
Chongqing Yuankang Environmental Protection Technology Co., Ltd.	300,000.00		300,000.00								300,000.00	
Ningxia Zaoquan Power Generation	345,320,000.00	295,376,330.54			27,443,492.18						322,819,822.72	

Investee	Investment costs	Balance as at January 1, 2019	Increase or decrease in 2019								Balance as at December 31, 2019	Balance of provision for impairment as at December 31, 2019
			Additional investment	Reduced investment	Investment profit and loss recognized under the equity method	Adjustments to other comprehensive income	Other equity changes	Declared distribution of cash dividends or profit	Provision for impairment	Others		
Co., Ltd.												
Ningxia Hongdunzi Coal Industry Co., Ltd.	80,000,000.00		80,000,000.00		-80,000,000.00							
Nanyang Yahekou Power Generation Co., Ltd.	276,276,973.01	218,474,747.94			-12,374,130.93						206,100,617.01	
Henan Zhongping Luyang Coal and Electricity Co., Ltd.	32,484,060.00	42,341,274.63									42,341,274.63	
Weihai Nursing Home of Henan Hongyuan Electric Power Fuel Corporation	2,645,000.00	971,994.04									971,994.04	
Henan Yagao New Energy Co., Ltd.	21,774,000.00		21,774,000.00								21,774,000.00	
Ronghe Dongneng (Jiaxing) New Energy Investment Partnership (Limited Partnership)	260,000,000.00	260,000,000.00			12,104,381.21			12,104,381.21			260,000,000.00	
Xi'an Langshiyi Enterprise Management Consulting Co., Ltd.	39,298,000.00		39,298,000.00	39,298,000.00	3,359,171.51			3,359,171.51				
Bairui Innovation Venture Capital Co., Ltd.	39,000,000.00	48,772,633.06			-1,888,251.15		18,743,479.00				65,627,860.91	
Henan Hongqi Enterprise Management Co., Ltd.	30,000,000.00	9,068,556.61			11,387,542.74						20,456,099.35	
Beijing Dongcheng District Historical and Cultural City Protection Fund Management Co., Ltd.	25,000,000.00	24,207,726.40			83,556.25						24,291,282.65	
Zhongyuan Airport Industrial Investment Fund Management Co., Ltd.	15,000,000.00	18,270,727.60			1,816,429.73						20,087,157.33	
Gannan Soviet Area Revitalization and Development Fund Management Co., Ltd.	9,000,000.00	30,772,149.41			-180,000.00						30,592,149.41	

Investee	Investment costs	Balance as at January 1, 2019	Increase or decrease in 2019								Balance as at December 31, 2019	Balance of provision for impairment as at December 31, 2019
			Additional investment	Reduced investment	Investment profit and loss recognized under the equity method	Adjustments to other comprehensive income	Other equity changes	Declared distribution of cash dividends or profit	Provision for impairment	Others		
Zhengzhou Bairui Innovation Investment Management Co., Ltd.	6,326,200.00	3,397,944.80			338,413.43						3,736,358.23	
Henan Bairui Liding Investment Co., Ltd.	900,000.00	1,141,365.77		1,186,604.90	45,239.13							
Shanghai Ronghe Dianke Financial Leasing Co., Ltd.	175,000,000.00		175,000,000.00		3,815,149.10						178,815,149.10	
Beijing Ronghe Shengyuan Power Sales Co., Ltd.	113,936,580.82	56,912,236.22			2,223,189.96						59,135,426.18	
Inner Mongolia Baotailun Mining Co., Ltd.	1,253,600,000.00	1,260,000,000.00		1,260,000,000.00								
Jarud Banner Tiejin Transportation Co., Ltd.	424,095,495.00	330,225,557.62			115,100,833.92			42,161,000.00			403,165,391.54	
Tongliao Business Training Co., Ltd.	50,000,000.00	33,302,171.71			-3,015,679.84						30,286,491.87	
Inner Mongolia Huomei Yicheng Energy Co., Ltd.	18,000,000.00	238,921,197.27			5,931,930.45						244,853,127.72	
Tongliao Electric Power Construction and Installation Co., Ltd.	11,539,743.51	7,632,111.44			11,664.30						7,643,775.74	
Inner Mongolia Zhongyou Huo Coal Oil Co., Ltd.	10,150,040.00	15,517,663.38			2,087,990.79						17,605,654.17	
Guizhou Railway Investment Co., Ltd.	1,900,000,000.00	2,347,765,314.28			49,111,058.36		151,318,443.50				2,548,194,816.14	
NARI Jidian New Energy(Nanjing) Co., Ltd.	27,595,804.99	19,736,564.17			332,341.96	276,970.30	149,566.13				20,495,442.56	
Jilin Boda Biochemical Co., Ltd.	25,731,630.71	75,166,207.84			-68,141,642.55		-292,693.21				6,731,872.08	
Datang Guizhou Faer Co., Ltd.	448,079,800.00	118,948,627.64			-60,637,499.51						58,311,128.13	
Guizhou Dafang Power Generation Co., Ltd.	199,440,000.00											
Guizhou Faer Coal Industry Co., Ltd.	81,990,000.00	168,515,838.41			30,757,698.14			1,913,300.00			197,360,236.55	
Guizhou Hongwei Highway Co., Ltd.	77,000,000.00	77,000,000.00									77,000,000.00	77,000,000.00
Datang Yemazhai Power Generation	61,440,000.00											

Investee	Investment costs	Balance as at January 1, 2019	Increase or decrease in 2019								Balance as at December 31, 2019	Balance of provision for impairment as at December 31, 2019
			Additional investment	Reduced investment	Investment profit and loss recognized under the equity method	Adjustments to other comprehensive income	Other equity changes	Declared distribution of cash dividends or profit	Provision for impairment	Others		
Co., Ltd.												
Guizhou Wulunshan Coal Industry Co., Ltd.	60,000,000.00											
Guizhou Nengfa Gaoshan Mining Industry Co., Ltd.	51,000,000.00											
Guizhou Bide Coal Industry Co., Ltd.	48,000,000.00											
Guizhou Yushe Coal Industry Co., Ltd.	40,000,000.00											
Guizhou Qianxi Energy Development Co., Ltd.	37,500,000.00	50,426,522.57			32,737,746.40		1,186,784.89	1,024,518.22		-2,845,881.79	80,480,653.85	
Guizhou Libo Lidu Hydropower Development Co., Ltd.	10,462,000.00	25,592,713.82			4,912,544.10					-13,554,539.48	16,950,718.44	
Guizhou Yunzhilong Electric Coal Transportation Investment Co., Ltd.	4,000,000.00	4,000,000.00									4,000,000.00	4,000,000.00
Shanghai Wujing No. 2 Power Generation Co., Ltd.	1,193,080,886.36	1,203,446,800.28			6,504,264.51						1,209,951,064.79	
Enemalta PLC	709,520,000.00	1,018,834,342.65			-766,007.59					-4,354,463.51	1,013,713,871.55	
Shanghai Shenergy Lingang CCGT Power Generation Co., Ltd.	431,550,000.00	539,810,643.27			76,601,862.75			69,650,000.00			546,762,506.02	
Jiangsu Jiusi Investment Co., Ltd.	271,440,000.00	160,836,274.51	110,603,725.49								271,440,000.00	
Huadian Wangting Gas-fired Power Generation (Jiangsu) Co., Ltd.	222,852,724.66	241,314,007.24			-16,510,407.65			4,500,000.00			220,303,599.59	
Zhejiang Zheneng Zhenhai Gas-fired Power Generation (Zhejiang) Co., Ltd.	199,687,500.00	178,155,820.41			4,351,183.10						182,507,003.51	
Shanghai Donghai Wind Power Co., Ltd.	117,360,000.00	137,838,945.10			11,126,904.39			14,258,725.27			134,707,124.22	
Shanghai Yitian New Energy Venture Capital Partnership	102,000,000.00	101,745,880.98			-1,624,506.60						100,121,374.38	

Investee	Investment costs	Balance as at January 1, 2019	Increase or decrease in 2019								Balance as at December 31, 2019	Balance of provision for impairment as at December 31, 2019
			Additional investment	Reduced investment	Investment profit and loss recognized under the equity method	Adjustments to other comprehensive income	Other equity changes	Declared distribution of cash dividends or profit	Provision for impairment	Others		
(L.P.)												
Hai'an Concord Wind Power Generation Co., Ltd.	20,470,500.00	21,701,101.43								-21,701,101.43		
SPIC Zhoushan Zhihui Marine Energy Technology Co., Ltd.	19,440,000.00	1,440,000.00	18,000,000.00								19,440,000.00	
Zhejiang Shangdian Tiantai Mountain Wind Power Co., Ltd.	13,981,320.00											
Chuangdao (Shanghai) Intelligent Technology Co., Ltd.	7,200,000.00	2,214,183.36			-456,742.01						1,757,441.35	
Pei County Yunda New Energy Technology Co., Ltd.	5,700,000.00	5,700,000.00	2,136,472.00		1,342,007.04					-9,178,479.04		
International Renewable Energy Service Center	2,220,000.00	4,798,163.31			2,476,112.90					17,660.40	7,291,936.61	
Shanghai Chongming Beiyan New Energy Power Generation Co., Ltd.	1,000,000.00	1,000,000.00							1,000,000.00		1,000,000.00	1,000,000.00
Qingyun Shangde Wind Power Co., Ltd.	24,048,430.49		24,048,430.49								24,048,430.49	
Qinghai Energy Development Co., Ltd.	755,000,000.00	640,074,615.85			-10,877,139.00	-4,428,186.14	-5,667,354.03				619,101,936.68	
Xi'an Institute of Crystal Growing Technology Co., Ltd.	40,000,000.00	548,547.49			-548,547.49							
Qinghai Guoshang New Energy Development Co., Ltd.	200,000,000.00		200,034,501.80								200,034,501.80	
Jiangsu Nuclear Power Co., Ltd.	4,337,435,000.00	5,120,928,686.25	373,788,000.00		643,690,471.90	84,000.00	-6,308,244.36	441,000,000.00			5,691,182,913.79	
Sanmen Nuclear Power Co., Ltd.	1,658,869,600.00	1,654,740,502.42	33,890,000.00		-128,996,835.49	404,461.87	-198,604.31			-896,765.85	1,558,942,758.64	
Huaneng Shandong Shidaobay Nuclear Power Co., Ltd.	1,009,521,441.84	924,837,245.31	31,000,000.00								955,837,245.31	

Investee	Investment costs	Balance as at January 1, 2019	Increase or decrease in 2019								Balance as at December 31, 2019	Balance of provision for impairment as at December 31, 2019
			Additional investment	Reduced investment	Investment profit and loss recognized under the equity method	Adjustments to other comprehensive income	Other equity changes	Declared distribution of cash dividends or profit	Provision for impairment	Others		
Shenhua Guohua Shouguang Power Co., Ltd	570,780,000.00	703,549,714.90			147,908,993.29			127,870,451.72			723,588,256.47	
Nuclear Power Qinshan Joint Venture Company Ltd.	228,000,000.00	527,576,351.14			116,042,386.10	-167,893.34	104,540.15	92,880,000.00			550,675,384.05	
China Nuclear Baotou Nuclear Fuel Components Co., Ltd.	210,000,000.00	130,012,537.97			-26,038,099.09						103,974,438.88	
Third Qinshan Nuclear Power Co., Ltd.	200,000,000.00	1,200,106,244.92			263,873,307.94	105,718.20	1,169,335.56	201,400,000.00			1,263,854,606.62	
CNNC Henan Nuclear Power Co., Ltd.	40,000,000.00	40,000,000.00									40,000,000.00	
Shandong Energy and Environmental Trading Center Co., Ltd.	16,000,000.00	11,112,804.52			-395,036.66						10,717,767.86	
Shanghai Petrochemical Equipment Inspection & Testing Co., Ltd.	9,600,000.00	10,104,042.52			1,165,107.85			453,376.16			10,815,774.21	
DOSTLUK ENERJ? üRET?M ANON?M ??RKET?	5,526,990.00	5,242,081.17			-5,242,081.17							
Shenzhen Ludian Electric Power Design Research Institute Co., Ltd.	4,000,000.00											
Jiangsu National Nuclear Pipeline System Engineering Technology Research Institute Co., Ltd.	3,500,000.00	3,095,566.45			28,796.71						3,124,363.16	
Inner Mongolia Ludian Mengyuan Electric Power Engineering Co., Ltd.	3,000,000.00	4,557,977.66			328,340.45						4,886,318.11	
Shanghai Nuclear Equipment Testing and Verification Center Limited	2,450,000.00	2,493,573.78			375,727.29						2,869,301.07	
Shanghai Nuclear Power Technology	2,000,000.00	3,096,179.46			-157,933.42						2,938,246.04	

Investee	Investment costs	Balance as at January 1, 2019	Increase or decrease in 2019								Balance as at December 31, 2019	Balance of provision for impairment as at December 31, 2019
			Additional investment	Reduced investment	Investment profit and loss recognized under the equity method	Adjustments to other comprehensive income	Other equity changes	Declared distribution of cash dividends or profit	Provision for impairment	Others		
Equipment Co., Ltd.												
Ganhe Technology Co., Ltd.	50,000.00		50,000.00								50,000.00	
Shanghai Xin'an Shipping Co., Ltd.	33,000,000.00		33,000,000.00		-362,820.94						32,637,179.06	
Zhongneng Ronghe Intelligence Technology Co., Ltd.	25,500,000.00		25,500,000.00		6,624,937.08					898,369.08	33,023,306.16	
Vinh Tan 1 Power Company Limited	952,585,095.66	1,002,480,653.70			428,091,818.25						1,430,572,471.95	
Sichuan Guangwang Group Chuanjing Coal Industry Co., Ltd.	230,349,524.67	230,349,524.67									230,349,524.67	230,349,524.67
Sichuan Energy Investment Development Co., Ltd.	198,385,000.00	222,022,159.37			15,741,607.45			8,333,332.00			229,430,434.82	
Shanghai Chongming Beiyan Wind Power Co., Ltd.	42,692,988.12	43,533,739.88			2,789,824.89			3,630,576.65			42,692,988.12	
Guizhou Puan Diguapo Coal Industry Co., Ltd.	33,187,488.00	33,187,488.00									33,187,488.00	
Dongguan Zhongdian Xin'ao Heating Power Co., Ltd.	25,697,971.35	24,131,619.11			1,566,352.24						25,697,971.35	
Yibin Fuxi Fly Ash Development Co., Ltd.	2,262,000.00	7,099,556.88			5,488,403.97			2,730,000.00			9,857,960.85	
Xi'an Ruicheng Longtai New Energy Co., Ltd.	55,340,000.00		55,340,000.00								55,340,000.00	
Shandong Green Energy Investment Co., Ltd.	30,000,000.00		30,000,000.00		39,874.30						30,039,874.30	
Sinopharm (Pingdingshan) Medical & Health Industry Co., Ltd.	24,442,698.41		24,442,698.41								24,442,698.41	

8.21.3 Principal financial information of major joint ventures

Item	Amount in 2019	Amount in 2018

	Shanghai Waigaoqiao No. 2 Power Generation Co., Ltd.	Liaoning Hongyanhe Nuclear Power Co., Ltd.	Huaihu Coal & Power Co., Ltd.	Shanghai Waigaoqiao No. 2 Power Generation Co., Ltd.	Liaoning Hongyanhe Nuclear Power Co., Ltd.	Huaihu Coal & Power Co., Ltd.
Current assets	1,579,338,207.77	6,880,604,227.11	564,877,304.51	1,534,723,518.74	7,613,261,838.78	675,047,666.36
Non-current assets	2,948,065,982.52	68,090,306,097.89	5,854,448,396.19	3,193,614,612.12	64,274,253,901.72	6,069,918,901.05
Total assets	4,527,404,190.29	74,970,910,325.00	6,419,325,700.70	4,728,338,130.86	71,887,515,740.50	6,744,966,567.41
Current liabilities	289,619,082.77	8,040,416,220.12	2,815,787,013.84	366,141,075.51	7,458,625,825.65	2,036,780,957.86
Non-current liabilities	55,431,650.00	50,637,329,974.79	988,799,753.27	63,179,430.00	49,077,411,660.75	1,908,403,216.19
Total liabilities	345,050,732.77	58,677,746,194.91	3,804,586,767.11	429,320,505.51	56,536,037,486.40	3,945,184,174.05
Net assets	4,182,353,457.52	16,293,164,130.09	2,614,738,933.59	4,299,017,625.35	15,351,478,254.10	2,799,782,393.36
Share of net assets calculated at the shareholding ratio	836,470,691.50	7,139,868,325.20	1,296,126,089.38	859,803,525.07	6,908,165,214.35	1,387,852,132.39
Adjustment matters	2,166,153.06		-3,352,767.38	2,166,153.06	-136,982,910.44	-1,933,119.19
Book value of equity investments in joint ventures	838,636,844.56	7,139,868,325.20	1,292,773,322.00	861,969,678.13	6,771,182,303.91	1,385,919,013.20
Operating income	2,671,311,350.19	9,530,209,719.03	3,529,184,136.76	2,773,944,109.55	8,937,928,340.67	3,434,480,125.12
Financial expenses	(15,551,570.35)	1,873,601,614.53	149,498,865.41	-9,921,556.22	1,943,450,271.07	155,672,069.38
Income tax expenses	98,186,453.15	178,414,491.68	35,256,227.73	73,837,502.89	120,429,966.80	105,408,099.00
Net profit	303,335,832.17	1,070,625,490.71	109,839,840.23	225,620,208.14	1,331,820,655.86	318,420,856.58
Other comprehensive income						

Item	Amount in 2019			Amount in 2018		
	Shanghai Waigaoqiao No. 2 Power Generation Co., Ltd.	Liaoning Hongyanhe Nuclear Power Co., Ltd.	Huaihu Coal & Power Co., Ltd.	Shanghai Waigaoqiao No. 2 Power Generation Co., Ltd.	Liaoning Hongyanhe Nuclear Power Co., Ltd.	Huaihu Coal & Power Co., Ltd.
Total comprehensive income	303,335,832.17	1,070,625,490.71	109,839,840.23	225,620,208.14	1,331,820,655.86	318,420,856.58
Dividends received from joint ventures in the current period	84,000,000.00	54,025,616.61	165,000,000.00		180,689,549.21	110,000,000.00

8.21.4 Principal financial information of major associates

Item	Amount in 2019					
	Jiangsu Nuclear Power Co., Ltd.	Guizhou Railway Investment Co., Ltd.	Shanghai Shenergy Lingang CCGT Power Generation Co., Ltd.	Shanghai Wujing No. 2 Power Generation Co., Ltd.	Third Qinshan Nuclear Power Co., Ltd.	Nuclear Power Qinshan Joint Venture Company Ltd.
Current assets	6,780,176,950.60	11,258,503,098.85	643,341,599.69	1,347,320,975.70	3,856,197,327.82	5,766,993,988.42
Non-current assets	73,763,253,353.33	38,725,128,044.31	2,056,121,921.14	1,437,959,526.64	7,247,367,706.99	12,854,773,637.70
Total assets	80,543,430,303.93	49,983,631,143.16	2,699,463,520.83	2,785,280,502.34	11,103,565,034.81	18,621,767,626.12
Current liabilities	6,587,349,085.48	3,238,494,064.05	834,889,664.91	279,403,866.36	833,167,322.95	5,524,865,535.98
Non-current liabilities	55,056,868,625.82	14,617,937,030.00	302,834,147.50	33,996,459.60	3,954,339,859.17	3,944,032,337.83
Total liabilities	61,644,217,711.30	17,856,431,094.05	1,137,723,812.41	313,400,325.96	4,787,507,182.12	9,468,897,873.81
Net assets	18,899,212,592.63	32,127,200,049.11	1,561,739,708.42	2,471,880,176.38	6,316,057,852.69	9,152,869,752.31
Share of net assets calculated at the shareholding ratio	5,691,182,913.80	2,548,194,816.14	546,608,897.95	1,211,221,286.43	550,675,384.04	1,263,854,606.62
Adjustment matters			153,608.07	-1,270,221.64		
Book value of equity investments in associates	5,691,182,913.80	2,548,194,816.14	546,762,506.02	1,209,951,064.79	550,675,384.04	1,263,854,606.62
Operating income	11,056,632,790.61	6,171,219,715.95	1,923,524,290.18	1,369,702,430.76	4,228,421,555.66	7,028,920,248.63
Net profit	2,118,398,209.94	276,718,926.47	218,862,464.99	13,274,009.20	1,315,628,796.96	192,181,504,304.00
Other comprehensive					27,745,157.36	27,745,457.36

Item	Amount in 2019					
	Jiangsu Nuclear Power Co., Ltd.	Guizhou Railway Investment Co., Ltd.	Shanghai Shenergy Lingang CCGT Power Generation Co., Ltd.	Shanghai Wujing No. 2 Power Generation Co., Ltd.	Third Qinshan Nuclear Power Co., Ltd.	Nuclear Power Qinshan Joint Venture Company Ltd.
income						
Total comprehensive income	2,118,398,209.94	276,718,926.47	218,862,464.99	13,274,009.20	1,343,373,954.32	192,209,249,761.36
Dividends received from associates in the current period	441,000,000.00		69,650,000.00		201,400,000.00	92,880,000.00

(Continued)

Item	Amount in 2018					
	Jiangsu Nuclear Power Co., Ltd.	Guizhou Railway Investment Co., Ltd.	Shanghai Shenergy Lingang CCGT Power Generation Co., Ltd.	Shanghai Wujing No. 2 Power Generation Co., Ltd.	Third Qinshan Nuclear Power Co., Ltd.	Nuclear Power Qinshan Joint Venture Company Ltd.
Current assets	5,890,770,908.44	11,911,659,399.42	623,471,689.63	843,559,815.68	3,443,058,450.41	5,300,075,197.27
Non-current assets	71,189,493,806.13	34,669,016,425.41	2,271,694,158.87	1,963,803,367.46	7,503,853,871.71	13,701,069,657.30
Total assets	77,080,264,714.57	46,580,675,824.83	2,895,165,848.50	2,807,363,183.14	10,946,912,322.12	19,001,144,854.57
Current liabilities	10,145,234,159.67	2,763,877,724.99	1,049,607,127.36	310,274,258.83	1,207,766,153.87	5,150,405,057.57
Non-current liabilities	49,865,244,934.06	14,202,109,666.67	303,242,597.50	38,482,757.14	3,738,614,943.64	5,057,800,611.38
Total liabilities	60,010,479,093.73	16,965,987,391.66	1,352,849,724.86	348,757,015.97	4,946,381,097.51	10,208,205,668.95
Net assets	17,069,785,620.84	29,614,688,433.17	1,542,316,123.64	2,458,606,167.17	6,000,531,224.61	8,792,939,185.62

Item	Amount in 2018					
	Jiangsu Nuclear Power Co., Ltd.	Guizhou Railway Investment Co., Ltd.	Shanghai Shenergy Lingang CCGT Power Generation Co., Ltd.	Shanghai Wujing No. 2 Power Generation Co., Ltd.	Third Qinshan Nuclear Power Co., Ltd.	Nuclear Power Qinshan Joint Venture Company Ltd.
Share of net assets calculated at the shareholding ratio	5,120,935,686.25	2,347,765,314.28	539,810,643.27	1,204,717,021.91	1,200,106,244.92	1,200,106,244.92
Adjustment matters	-7,000.00			-1,270,221.63		
Book value of equity investments in associates	5,120,928,686.25	2,347,765,314.28	539,810,643.27	1,203,446,800.28	1,200,106,244.92	1,200,106,244.92
Operating income	7,747,767,929.09	5,486,914,025.99	1,861,556,658.74	1,571,428,584.70	4,097,536,310.71	6,942,972,946.66
Net profit	1,607,735,770.92	224,833,067.22	220,066,472.10	1,563,177.91	1,115,720,977.34	1,708,480,071.99
Other comprehensive income					218,154.02	218,154.02
Total comprehensive income	1,607,735,770.92	224,833,067.22	220,066,472.10	1,563,177.91	1,115,939,131.36	1,708,698,226.01
Dividends received from associates in the current period	504,000,000.00		66,500,000.00	19,992,000.00	206,800,000.00	95,400,000.00

8.21.5 Summary of insignificant joint ventures and associates

Item	Amount in 2019	Amount in 2018

Item	Amount in 2019	Amount in 2018
Joint ventures:		
Total book value of investments	6,335,771,574.28	6,019,758,787.76
Total amount of the following items calculated at the shareholding ratio		
Net profit	394,362,694.61	88,453,465.21
Other comprehensive income	-35,443,894.26	148,806,897.00
Total comprehensive income	358,918,800.35	237,260,362.21
Associates:		
Total book value of investments	11,827,593,329.55	12,541,092,959.48
Total amount of the following items calculated at the shareholding ratio		
Net profit	-275,998,920.36	187,716,783.64
Other comprehensive income	-1,682,866.04	-304,092,954.27
Total comprehensive income	-277,681,786.40	-116,376,170.63

8.22 Investment in other equity instruments

8.22.1 Breakdowns of investment in other equity instruments

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Perpetual bonds of Bank of China	630,988,200.00	
Bank of Zhengzhou Co., Ltd.	481,694,655.73	534,797,541.91
Hengqin Jidian Green Energy Industrial Investment Fund (Limited Partnership)	246,582,000.00	246,582,000.00
Investment in Huainan Mining (Group) Co., Ltd.	202,315,100.00	
Huainan Mining (Group) Co., Ltd.	200,283,018.87	
Equity in Alltrust Property Insurance Company Ltd.	120,720,307.69	129,807,231.78
Shanghai Donghai Wind Power Generation Co., Ltd.	114,879,241.28	114,879,241.28
Guian New District Electricity Distribution Co., Ltd.	80,000,000.00	80,000,000.00
Pakistan Project	69,762,000.00	34,316,000.00
Guizhou Wenjiaba Mining Industry Co., Ltd.	54,941,362.10	68,270,200.00
Henan Bianjing Rural Commercial Bank Co., Ltd.	53,870,094.33	51,483,114.31
China Yangtze Power Co., Ltd.	34,008,514.00	29,382,764.00
China Construction Bank	33,630,345.00	29,630,055.00
Anhui Wuhu Nuclear Power Co., Ltd.	28,000,000.00	28,000,000.00
Chongqing Tongxing Rubbish Treatment Co., Ltd.	24,100,000.00	23,740,000.00

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Inner Mongolia Huoning Carbon Co., Ltd.	20,000,000.00	20,000,000.00
Jiangsu-Shanxi Energy Holdings Limited	19,000,000.00	19,000,000.00
CITIC Securities	13,398,880.00	
Gongyi Pufa Village Bank	12,154,303.42	15,917,704.79
Jiangsu Baling Conch Cement Co., Ltd.	8,240,000.00	8,240,000.00
Hainan International Energy Exchange	8,100,000.00	
Xinjiang Aral Xinhu Thermal Power Co., Ltd.	8,000,000.00	8,000,000.00
Jilin Electric Power Research Institute Co., Ltd.	6,510,000.00	6,510,000.00
Yancheng Hengli Venture Capital Co., Ltd.	5,325,000.00	5,325,000.00
Lanzhou New District Jinxiu Silk Road Industrial Investment Fund Management Co., Ltd.	5,059,339.42	5,142,952.86
Equity in Hubei Electric Power Exchange Co., Ltd.	5,000,000.00	5,000,000.00
Xinhong Coal Industry Co., Ltd., Shandong Wangchao Coal Electricity Group	4,500,000.00	16,633,232.56
Zhongneng Fuel Logistics Co., Ltd.	4,000,000.00	4,000,000.00
Shanghai Chengding Venture Capital Co., Ltd.	1,490,819.04	3,831,036.12
POWERCHINA Shanghai Electric Power Engineering Co., Ltd.	1,000,000.00	1,000,000.00
Zhongneng United Electric Power Fuel Co., Ltd.	900,000.00	900,000.00
Changzhou Shangying Investment Co., Ltd.	242,212.25	236,550.07
Hainan Dale City		219,000,000.00
Jilin Jichang Thermal Power Co., Ltd.		66,545,490.05
Jilin Jichang Energy Co., Ltd.		53,196,371.84
Jilin Jichang Electric Power Co., Ltd.		209,490,352.67
Total	2,498,695,393.13	2,038,856,839.24

8.22.2 Significant investment in other equity instruments as at December 31, 2019

Item	Investment costs	Changes in fair value accumulatively included in other comprehensive income	Fair value as at December 31, 2019
Perpetual bonds of Bank of China	600,000,000.00	30,988,200.00	630,988,200.00
Bank of Zhengzhou Co., Ltd.	235,828,199.00	245,866,456.73	481,694,655.73
Hengqin Jidian Green Energy Industrial Investment Fund (Limited Partnership)	246,582,000.00	0.00	246,582,000.00
Investment in Huainan Mining	200,000,000.00	2,315,100.00	202,315,100.00

Item	Investment costs	Changes in fair value accumulatively included in other comprehensive income	Fair value as at December 31, 2019
(Group) Co., Ltd.			
Huainan Mining (Group) Co., Ltd.	200,283,018.87	0.00	200,283,018.87
Equity in Alltrust Property Insurance Company Ltd.	100,000,000.00	20,720,307.69	120,720,307.69
Shanghai Donghai Wind Power Generation Co., Ltd.	114,879,241.28	0.00	114,879,241.28
Guian New District Electricity Distribution Co., Ltd.	80,000,000.00	0.00	80,000,000.00
Pakistan Project	69,762,000.00	0.00	69,762,000.00
Guizhou Wenjiaba Mining Industry Co., Ltd.	75,753,443.00	-20,812,080.90	54,941,362.10
Kaifeng City Rural Credit Cooperative Association	66,555,200.00	-12,685,105.67	53,870,094.33

8.23 Other non-current financial assets

Item	Fair value as at December 31, 2019	Fair value as at January 1, 2019
Financial assets measured at fair value through current profit or loss	197,170,379.36	399,681,087.33
Including: investment in debt instruments		
Investment in equity instruments	26,700,000.00	
Trust products	170,470,379.36	399,681,087.33
Total	197,170,379.36	399,681,087.33

8.24 Investment properties

8.24.1 Investment properties measured at fair value

Item	Fair value as at January 1, 2019	Increase in 2019			Decrease in 2019		Fair value as at December 31, 2019
		Purchase	Self-use property or property transferred in from inventories	Gains or losses from changes in fair value	Disposal	Converted to self-use property	
I. Total costs	3,299,445,379.31	11,390,248.92	2,428,600,057.24			2,006,163,383.81	3,733,272,301.66
Including: 1. buildings and constructions	1,743,360,711.79	11,390,248.92	2,261,115,988.50			450,078,716.29	3,565,788,232.92
2. Land use rights	1,556,084,667.52		167,484,068.74			1,556,084,667.52	167,484,068.74
II. Total changes in fair value	267,383,719.37		12,353,864.14	175,594,817.27			455,332,400.78
Including: 1. buildings and constructions	267,383,719.37		12,353,864.14	175,700,399.87			455,437,983.38
2. Land use rights				-105,582.60			-105,582.60
III. Total book value of investment properties	3,566,829,098.68	11,390,248.92	2,440,953,921.38	175,594,817.27		2,006,163,383.81	4,188,604,702.44
Including: 1. buildings and constructions	2,010,744,431.16	11,390,248.92	2,273,469,852.64	175,700,399.87		450,078,716.29	4,021,226,216.30
2. Land use rights	1,556,084,667.52		167,484,068.74	-105,582.60		1,556,084,667.52	167,378,486.14

(1) The fair value of investment properties as at the end of the period mainly refers to the market prices of similar properties in the same area or area close to the area disclosed on the public property trading website. For companies that cannot reasonably obtain the fair value of investment properties, an appraisal agency is hired to appraise the fair value of the investment properties on the date of change in the policy and the subsequent balance sheet date.

(2) There are many idle properties of the units subordinate to the Group Company. Based on the current open and transparent property market, the fair value can be obtained continuously and reliably. In order to make the Group Company's financial statements to reflect the value of the asset more fairly, the subsequent measurement of the investment properties of the Group Company is adjusted from "by the cost method" to "by the fair value". Furthermore, as for the unoccupied constructions which are held for operating lease, if the board of directors (or a similar organ) makes a written resolution which clearly states that the aforesaid construction is used for operating lease and the intent for holding such construction will not change in the short-term future, such construction will be presented as investment properties.

8.25 Fixed assets

Item	Book value as at December 31, 2019	Book value as at January 1, 2019
Fixed assets	604,224,269,789.01	550,080,790,912.12
Disposal of fixed assets	531,942,714.99	600,819,893.81
Total	604,756,212,504.00	550,681,610,805.93

8.25.1 Breakdowns of fixed assets

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
I. Total original book value:	824,429,702,057.28	104,841,647,003.00	13,876,318,834.37	915,395,030,225.91
Including: land assets	767,543,451.04	8,681,449.07		776,224,900.11
Buildings and constructions	238,300,517,835.82	8,108,556,112.64	4,092,601,750.93	242,316,472,197.53
Machinery equipment	530,005,137,823.18	59,570,714,799.00	9,366,934,495.15	580,208,918,127.03
Transportation facilities	5,045,489,595.66	226,142,849.69	228,854,987.69	5,042,777,457.66
Others	50,311,013,351.58	36,927,551,792.60	187,927,600.60	87,050,637,543.58
II. Total accumulated depreciation:	264,277,619,866.07	40,750,415,581.05	4,916,327,261.77	300,111,708,185.35
Including: land assets				
Buildings and constructions	75,775,697,732.40	8,689,869,256.71	1,094,336,225.82	83,371,230,763.29
Machinery equipment	181,798,102,518.54	28,939,857,394.49	3,472,743,619.99	207,265,216,293.04
Transportation facilities	3,377,720,909.05	334,003,450.35	202,316,407.92	3,509,407,951.48
Others	3,326,098,706.08	2,786,685,479.50	146,931,008.04	5,965,853,177.54
III. Total net book value of fixed assets	560,152,082,191.21			615,283,322,040.56
Including: land assets	767,543,451.04			776,224,900.11
Buildings and constructions	162,524,820,103.42			158,945,241,434.24
Machinery equipment	348,207,035,304.64			372,943,701,833.99
Transportation facilities	1,667,768,686.61			1,533,369,506.18
Others	46,984,914,645.50			81,084,784,366.04
IV. Total provision for impairment	10,071,291,279.09	2,328,703,059.53	1,340,942,087.07	11,059,052,251.55
Including: land assets				
Buildings and constructions	2,233,106,343.26	1,154,765,145.49	402,744,083.13	2,985,127,405.62
Machinery equipment	7,657,603,260.19	1,116,813,907.14	928,926,247.21	7,845,490,920.12
Transportation facilities	13,346,120.13	2,418,375.86	9,229,022.25	6,535,473.74
Others	167,235,555.51	54,705,631.04	42,734.48	221,898,452.07
V. Total book value of fixed assets	550,080,790,912.12			604,224,269,789.01
Including: land assets	767,543,451.04			776,224,900.11
Buildings and constructions	160,291,713,760.16			155,960,114,028.62
Machinery equipment	340,549,432,044.45			365,098,210,913.87
Transportation facilities	1,654,422,566.48			1,526,834,032.44
Others	46,817,679,089.99			80,862,885,913.97

8.25.2 Temporarily idle fixed assets

Item	Original book value	Accumulated depreciation	Provision for impairment	Book value	Remarks
Buildings and constructions	1,879,442,418.71	161,159,929.92	509,345,302.54	1,208,937,186.25	
Machinery equipment	417,715,810.81	97,421,340.21	54,067,721.04	266,226,749.56	
Transportation facilities	10,886,629.03	5,845,889.73	1,084,151.51	3,956,587.79	
Others	13,821,695.22		4,325,175.37	9,496,519.85	
Total	2,321,866,553.77	264,427,159.86	568,822,350.46	1,488,617,043.45	

8.25.3 Fixed assets with pending certificate of title

Item	Book value	Reason for failing to obtain certificate of title
Buildings and constructions	4,722,137,682.42	Certificate of title handling in process

8.25.4 Disposal of fixed assets

Item	Book value as at December 31, 2019	Book value as at January 1, 2019	Reason for disposal
Assets from unit shutdown	414,396,655.94	505,161,358.01	Unit shutdown
Net value of other scrapped fixed assets	117,546,059.05	95,658,535.80	Transferred from scrapped fixed assets
Total	531,942,714.99	600,819,893.81	

8.26 Construction in progress

Item	Balance as at December 31, 2019			Balance as at January 1, 2019		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Construction in progress	148,845,851,411.66	3,067,435,692.37	145,778,415,719.29	156,993,471,348.49	2,759,766,869.44	154,233,704,479.05
Project materials	11,750,336,024.10	34,109,313.69	11,716,226,710.41	9,022,738,370.97	19,988,101.10	9,002,750,269.87
Total	160,596,187,435.76	3,101,545,006.06	157,494,642,429.70	166,016,209,719.46	2,779,754,970.54	163,236,454,748.92

8.26.1 Breakdowns of construction in progress

Item	Balance as at December 31, 2019			Balance as at January 1, 2019		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Haiyang Nuclear Power Phase II Project	14,013,665,684.40		14,013,665,684.40	13,476,455,375.41		13,476,455,375.41
Yangqu Hydropower Station	8,128,640,767.50		8,128,640,767.50	7,329,660,525.09		7,329,660,525.09
PWR Demonstration Project	6,991,349,170.43		6,991,349,170.43	5,068,218,213.75		5,068,218,213.75
Large-scale infrastructure project of Myitsone Hydropower Station	5,471,327,828.40		5,471,327,828.40	5,174,231,722.72		5,174,231,722.72
Guizhou coal-electricity-manganese integration project	4,038,356,194.94	164,971,831.75	3,873,384,363.19	3,223,061,447.82	164,971,831.75	3,058,089,616.07
1000MW Wind Farm in Section I of Qieji Township, Haixi Prefecture	3,704,129,449.36		3,704,129,449.36			
Pengze Nuclear Power Project	3,641,505,493.42		3,641,505,493.42	3,505,195,565.32		3,505,195,565.32
Fenyi 2 * 660MW Unit Project	2,793,065,264.63		2,793,065,264.63	1,298,351,576.00		1,298,351,576.00
Qinyang Company: State Power Investment Corporation Qinyang 2 * 1000MW Project	2,728,902,347.39		2,728,902,347.39	5,081,032,987.07		5,081,032,987.07

Item	Balance as at December 31, 2019			Balance as at January 1, 2019		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Guizhou Wuchuan-Zheng'an-Daozhen Area 1000kt / Alumina Project	2,523,277,225.83		2,523,277,225.83	1,572,791,400.32		1,572,791,400.32
Other projects	94,811,631,985.36	2,902,463,860.62	91,909,168,124.74	111,264,472,534.99	2,594,795,037.69	108,669,677,497.30
Total	148,845,851,411.66	3,067,435,692.37	145,778,415,719.29	156,993,471,348.49	2,759,766,869.44	154,233,704,479.05

8.26.2 Changes of significant construction in progress in 2019

Project name	Budget	Balance as at January 1, 2019	Increase in 2019	Amount transferred into fixed assets in 2019	Other decreases in 2019 Amount	Balance as at December 31, 2019	Proportion of accumulated project investment in budget (%)	Project progress (%)	Accumulated capitalization amount of interest	Including: capitalization amount of interest in 2019	Capitalization rate of interest in 2019 (%)	Source of funds
Haiyang Nuclear Power Phase II Project	47,000,000,000.00	13,476,455,375.41	537,210,308.99			14,013,665,684.40	31.00	31.00	2,392,226,567.72	443,147,663.98	4.10	Loans and self-owned funds
Yangqu Hydropower Station	14,018,973,300.00	7,329,660,525.09	798,980,242.41			8,128,640,767.50	57.98	56.19	1,404,488,092.17	296,904,084.80	4.50	Loans and self-owned funds
PWR Demonstration Project	55,315,130,000.00	5,068,218,213.75	2,080,130,956.68	157,000,000.00		6,991,349,170.43	35.29	35.29	1,359,902,618.43	347,085,663.36	3.74	Loans and self-owned funds
Large-scale infrastructure project of Myitsone Hydropower Station	54,253,930,000.00	5,174,231,722.72	297,096,105.68			5,471,327,828.40	10.08	10.08	1,486,430,099.91	148,535,777.20	4.55	Loans and self-owned funds
Guizhou coal-electricity-manganese integration project	3,480,230,000.00	3,223,061,447.82	816,866,507.16	1,571,760.04		4,038,356,194.94	145.44	85.00	529,745,575.34	132,992,364.55	5.50	Loans and self-owned funds
1000MW Wind Farm in Section I of Qieji Township, Haixi Prefecture	6,950,913,200.00		3,704,129,449.36			3,704,129,449.36	60.22	53.29	6,216,521.33	6,216,521.33	4.50	Loans and self-owned funds
Pengze Nuclear Power Project		3,505,195,565.32	136,309,928.10			3,641,505,493.42			896,736,799.21	114,973,515.39	4.82	Loans and self-owned funds
Fenyi 2 * 660MW Unit Project	4,800,000,000.00	1,298,351,576.00	1,571,100,420.60		76,386,731.97	2,793,065,264.63	58.19	53.12	121,170,794.37	82,617,459.81	4.35	Loans and self-owned funds
Qinyang Company: State Power Investment Corporation Qinyang 2 * 1000MW Project	7,559,400,000.00	5,081,032,987.07	1,171,605,287.59	3,148,164,561.40	375,571,365.87	2,728,902,347.39	95.00	95.00	446,946,181.09	228,937,229.98	4.54	Loans and self-owned funds
Guizhou Wuchuan-Zheng'an-Daozhen Area 1000kt / Alumina Project	3,497,050,000.00	1,572,791,400.32	950,485,825.51			2,523,277,225.83	73.00	73.00	260,688,950.09	139,159,601.79	4.99	Loans and self-owned funds
Total	190,072,166,500.00	45,728,998,813.50	13,085,757,138.26	3,306,736,321.44	1,473,800,204.02	54,034,219,426.30			8,904,552,199.66	1,940,569,882.19		

8.26.3 Provision for impairment of construction in progress in 2019

Item	Provision in 2019	Reason for provision
Jinzhou Port - Baiyinhua Railway Capacity Expansion Project	232,007,472.22	Plan termination
Ranwugou Power Station	189,605,100.00	Project impairment
Qinzhou Phase I Cogeneration	138,110,018.55	Project termination
Qudui Hydropower Station	114,965,500.00	Project impairment
Maxionggou Grade II Power Station	101,670,000.00	Project impairment
Lignite upgrading project	66,059,433.74	Expected revenue unaccomplished
Boao Lecheng Project	53,674,136.34	Project termination
Pakistan KE Project	44,566,879.29	Project impairment
Renovation of garbage front storehouse	32,281,508.35	Old equipment and backward power generation technology
Sangmu 50Mwp Wind Farm in Xishui County	27,141,123.19	Project impairment
40MW Ecological Photovoltaic Project in Goutan Village, Zhangshan Township, Lai'an County, Anhui Province	25,033,433.51	Project postponement
Renduigou Yajin Power Station	24,547,527.40	Project impairment
Renduigou Sege Power Station	21,636,116.90	Project impairment
Early stage of Dabancheng Wind Power Phase I	20,000,000.00	Project termination
Tanzania Gas Power Station Project	19,692,926.80	Plan termination
Construction of Balutian Hydropower Station in Southern Yunnan	16,007,355.06	Plan termination
Water plant	15,821,225.11	Project termination
Shangdu 10MW Wind Power Project	14,000,000.00	Project termination
Boiler upgrading and renovation	11,534,576.15	Old equipment and backward power generation technology
2014 Infrastructural project - Toksun Wind Power Phase II 49.5MW project preliminary work application	10,715,547.81	Project termination
Impairment of other projects	169,440,942.08	Plan termination, etc.
Total	1,348,510,822.50	

8.26.4 Project materials

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Special materials	1,474,165,134.78	961,672,909.84
Special equipment	8,360,126,964.32	6,314,097,426.94
Tools and appliances	11,034,963.86	11,703,317.17
Others	1,870,899,647.45	1,715,276,615.92
Total	11,716,226,710.41	9,002,750,269.87

8.27 Right-of-use assets

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
I. Total original book value:	5,542,278,090.91	471,128,950.98	147,216,468.49	5,866,190,573.40
Including: land	784,337,423.55	197,658,086.26		981,995,509.81
Buildings and constructions	811,691,551.98	22,558,356.85		834,249,908.83
Machinery equipment	3,940,572,717.58	197,822,801.57	147,216,468.49	3,991,179,050.66
Transportation facilities	745,766.88	1,508,779.72		2,254,546.60
Others	4,930,630.92	51,580,926.58		56,511,557.50
II. Total accumulated depreciation:	294,882,379.88	292,790,396.90	15,100,465.46	572,572,311.32
Including: land		44,236,543.59		44,236,543.59
Buildings and constructions	30,768,665.10	49,885,660.02		80,654,325.12
Machinery equipment	264,081,481.18	197,172,601.84	15,100,465.46	446,153,617.56
Transportation facilities	32,233.60	701,344.83		733,578.43
Others		794,246.62		794,246.62
III. Total net book value of right-of-use assets	5,247,395,711.03			5,293,618,262.08
Including: land	784,337,423.55			937,758,966.22
Buildings and constructions	780,922,886.88			753,595,583.71
Machinery equipment	3,676,491,236.40			3,545,025,433.10
Transportation facilities	713,533.28			1,520,968.17
Others	4,930,630.92			55,717,310.88
IV. Total provision for impairment	8,757,980.17			8,757,980.17
Including: land				
Buildings and constructions				
Machinery equipment	8,757,980.17			8,757,980.17
Transportation facilities				
Others				
V. Total book value of	5,238,637,730.86			5,284,860,281.91

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
right-of-use assets				
Including: land	784,337,423.55			937,758,966.22
Buildings and constructions	780,922,886.88			753,595,583.71
Machinery equipment	3,667,733,256.23			3,536,267,452.93
Transportation facilities	713,533.28			1,520,968.17
Others	4,930,630.92			55,717,310.88

8.28 Intangible assets

8.28.1 Breakdowns of intangible assets

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
I. Total original costs	37,731,420,494.22	5,767,788,410.77	453,747,347.34	43,045,461,557.65
Including: patent rights	791,146,308.52	269,442,668.11	1,505.66	1,060,587,470.97
Trademark rights	184,257.59			184,257.59
Land use rights	16,036,074,202.47	2,681,530,097.68	312,069,671.54	18,405,534,628.61
Non-patented technology	2,783,767,878.96	451,130,237.50	1,192,223.58	3,233,705,892.88
Right to use house property	566,552.75			566,552.75
Prospecting rights	188,752,976.10	28,858,421.06		217,611,397.16
Franchise	5,251,694,960.74	128,279,037.74	1,389,401.86	5,378,584,596.62
Mining rights	5,212,604,611.39	177,711,330.28	25,740,292.73	5,364,575,648.94
Software	1,839,688,521.54	464,732,428.98	23,180,937.23	2,281,240,013.29
Others	5,626,940,224.16	1,566,104,189.42	90,173,314.74	7,102,871,098.84
II. Total accumulated amortization	5,359,547,282.88	1,704,558,008.76	59,015,046.68	7,005,090,244.96
Including: patent rights	133,456,134.22	82,437,734.06		215,893,868.28
Trademark rights	168,399.69	3,146.18		171,545.87
Land use rights	1,937,745,152.77	720,942,233.75	39,972,691.55	2,618,714,694.97
Non-patented technology	947,125,057.99	269,832,792.98	593,583.04	1,216,364,267.93
Right to use house property	146,959.66	8,006.20		154,965.86
Prospecting rights	2,616,262.98	308,598.40		2,924,861.38
Franchise	549,193,200.21	120,188,024.23		669,381,224.44
Mining rights	563,266,840.78	80,873,815.68	1,567,700.00	642,572,956.46

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
Software	749,955,446.52	208,960,963.66	10,364,427.80	948,551,982.38
Others	475,873,828.06	221,002,693.62	6,516,644.29	690,359,877.39
III. Total amount of provision for impairment of intangible assets	896,607,108.48	89,853,345.62		986,460,454.10
Including: patent rights				
Trademark rights				
Land use rights	112,440.09	6,584,215.94		6,696,656.03
Non-patented technology	7,169,197.11			7,169,197.11
Right to use house property				
Prospecting rights		2,363,368.32		2,363,368.32
Franchise				
Mining rights	702,772,035.93	77,229,535.94		780,001,571.87
Software	1,976,790.13	3,676,225.42		5,653,015.55
Others	184,576,645.22			184,576,645.22
IV. Total book value	31,475,266,102.86			35,053,910,858.59
Including: patent rights	657,690,174.30			844,693,602.69
Trademark rights	15,857.90			12,711.72
Land use rights	14,098,216,609.61			15,780,123,277.61
Non-patented technology	1,829,473,623.86			2,010,172,427.84
Right to use house property	419,593.09			411,586.89
Prospecting rights	186,136,713.12			212,323,167.46
Franchise	4,702,501,760.53			4,709,203,372.18
Mining rights	3,946,565,734.68			3,942,001,120.61
Software	1,087,756,284.89			1,327,035,015.36
Others	4,966,489,750.88			6,227,934,576.23

8.28.2 Land use rights with pending certificates of title

Item	Book value	Reason for failing to obtain certificate of title
Land use rights	345,213,958.52	Certificate of title handling in process
Right to use sea areas	11,909,718.25	Certificate of title handling in process
Total	357,123,676.77	

8.29 Development expenses

Item	Balance as at January 1, 2019	Increase in 2019		Decrease in 2019			Balance as at December 31, 2019
		Internal development expenses	Others	Amount recognized as intangible assets	Amount included in the current profit or loss	Others	
Research and development of 300MW heavy-duty gas turbine products	209,803,981.19	951,501,426.12					1,161,305,407.31
10R002N-5 reactor protection system cooperation development safety platform project (Martin cooperation part phase II contract)	803,257,399.43	23,366,449.87					826,623,849.30
AP1000 third generation nuclear power technology	1,054,605,234.61	10,272,837.85		248,995,510.37			815,882,562.09
Research on operation and maintenance technology of CAP1400	205,025,058.43	56,211,703.47					261,236,761.90

Item	Balance as at January 1, 2019	Increase in 2019		Decrease in 2019			Balance as at December 31, 2019
		Internal development expenses	Others	Amount recognized as intangible assets	Amount included in the current profit or loss	Others	
Nuclear Power Plant							
VO03 technology transfer	147,464,154.10	17,195,763.81					164,659,917.91
Los Arandanos	102,868,579.00	1,414,869.38					104,283,448.38
11R003N AP1000 technology transfer project	77,648,838.52	13,095,439.67					90,744,278.19
Research and development of a digital instrument control system with enhanced information security by using domestic chips	14,367,031.46	68,184,086.08		127,876.10			82,423,241.44
Zirconium 4 alloy tube and rod project for engineering	40,707,825.72	23,680,258.66					64,388,084.38
AP1000 nuclear	57,015,363.43	5,156,355.09					62,171,718.52

Item	Balance as at January 1, 2019	Increase in 2019		Decrease in 2019			Balance as at December 31, 2019
		Internal development expenses	Others	Amount recognized as intangible assets	Amount included in the current profit or loss	Others	
island, fuel operation and maintenance technology							
Other development expenses	3,026,284,269.39	1,254,063,324.05	558,503,465.85	1,054,175,414.91	1,341,137,661.74	331,838,818.39	2,111,699,164.25
Total	5,739,047,735.28	2,424,142,514.05	558,503,465.85	1,303,298,801.38	1,341,137,661.74	331,838,818.39	5,745,418,433.67

8.30 Goodwill

8.30.1 Book value of goodwill

Name of investee or matter forming goodwill	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
SPIC Pacific Hydro Pty Ltd	4,629,784,726.00	56,900,773.90		4,686,685,499.90
Sichuan Xingding Electric Power Co., Ltd.	1,383,351,755.87			1,383,351,755.87
Goodwill arising from acquisition of China Power New Energy Development Company Limited by China Power International Development Limited	846,224,399.15			846,224,399.15
Goodwill arising from acquisition of Dongguan China Power New Energy Heat Power Company Limited	547,956,000.00			547,956,000.00
Equity in Bridge Trust	534,428,734.67			534,428,734.67
Merger and acquisition of SPIC Shanxi Aluminum Co., Ltd., as well as added value from appraisal of fixed assets and intangible assets	442,838,162.53			442,838,162.53
Liaoning Dongfang Power Generation Co., Ltd.	423,907,689.37			423,907,689.37
Taralga	345,841,385.00	4,250,444.96		350,091,829.96
Acquisition of 100% equity of Huidong County Xingguang Electric Power Co., Ltd.	322,790,327.50			322,790,327.50
Acquisition of 61.17% equity of Mabian Xianjia Puhe Electric Power Co., Ltd.	304,100,959.47			304,100,959.47
Goodwill arising from acquisition of China Power International New Energy Holding Company Limited	279,820,000.00			279,820,000.00
Merger and acquisition of Dianneng Group	234,887,913.72			234,887,913.72
Combination of Qingtongxia Aluminum Power Co., Ltd. by Qingtongxia Aluminum Group	234,105,355.60			234,105,355.60
Goodwill generated from equity premium arising	185,828,911.21			185,828,911.21

Name of investee or matter forming goodwill	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
from purchase of Dezheng by Hongjun				
Goodwill of Guazhou, Gansu	170,223,918.06			170,223,918.06
Goodwill arising from acquisition of Shanghai China Power New Energy Property Development Company Limited	160,620,535.55			160,620,535.55
Goodwill of Li County Huacheng Company	140,422,630.13			140,422,630.13
Shanghai Electric Power Co., Ltd.	136,540,848.05			136,540,848.05
Goodwill of Sichuan Jiuyuan	83,576,432.48			83,576,432.48
Jilin Electric Power Co., Ltd.	81,805,638.28			81,805,638.28
Goodwill arising from acquisition of Fujian Shouning Niutoushan Hydropower Co., Ltd. by Fujian Investment & Development Group	78,462,389.32			78,462,389.32
Goodwill arising from acquisition of Gansu China Power Jiuquan Wind Power Co., Ltd.	70,367,000.00			70,367,000.00
Goodwill of Jiangling GCL		59,994,445.72		59,994,445.72
Chongqing Yuanda Environmental Protection	57,364,765.67			57,364,765.67
Goodwill of Ruzhou GCL		51,276,540.38		51,276,540.38
Goodwill arising from acquisition of German Wind Power	44,915,760.28			44,915,760.28
Goodwill arising from acquisition of Chongqing Meixi River Basin Hydropower Development Co., Ltd. by Fujian Investment & Development Group	41,168,583.62			41,168,583.62
SPIC Jiangxi Electric Power Co., Ltd.	38,650,878.96			38,650,878.96
SPIC Guizhou Jinyuan Group Co., Ltd.	32,361,138.02			32,361,138.02
Chongqing Yuneng Mining Industry (Group) Co., Ltd.	29,604,296.68			29,604,296.68

Name of investee or matter forming goodwill	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
PHB		26,259,325.80		26,259,325.80
Goodwill arising from acquisition of Vietnam Pingshun Wind Power Company by China Power International Development Limited	24,218,160.00			24,218,160.00
Goodwill arising from acquisition of Kunming China Power Environmental Protection Power Generation Co., Ltd.	24,032,900.29			24,032,900.29
Goodwill arising from purchase of China Kangfu International Leasing Co., Ltd.	22,308,640.48			22,308,640.48
SPIC Jiangxi Electric Power Co., Ltd. Qianshan Company	21,451,626.82			21,451,626.82
Goodwill arising from acquisition of China Power Hongze Thermal Power Co., Ltd.	18,480,392.61			18,480,392.61
Equity acquisition of Beijing Huatsing Gas Turbine & IGCC Technology Co., Ltd.	18,302,232.51			18,302,232.51
Goodwill arising from merger and acquisition of Yantai Runfeng	18,016,300.00			18,016,300.00
SPIC Yuanda Environmental Protection Engineering Co., Ltd.	16,920,377.89			16,920,377.89
China Power (Shangqiu) Thermal Power Co., Ltd.	14,629,496.51			14,629,496.51
Goodwill arising from acquisition of China Power Hongze Biomass Thermal Power Co., Ltd.	13,310,607.39			13,310,607.39
Goodwill of CNFC	12,720,022.06			12,720,022.06
Purchase of equity in SPIC Xianrong Futures Co., Ltd.	11,728,089.77			11,728,089.77
SPIC Jiangxi Electric Power Co., Ltd. Qianshan Company	11,556,900.08			11,556,900.08
Acquisition of 60% equity of Sichuan Zhongxing Electric	9,656,172.09			9,656,172.09

Name of investee or matter forming goodwill	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
Power Development Co., Ltd.				
Transfer of four wind power plants by Baiyinhua Coal Power Co., Ltd. to Jilin Electric Power Co., Ltd.	9,568,443.05			9,568,443.05
Acquisition of SPIC Xianrong Futures Co., Ltd. by SPIC China Power Complete Equipment Co., Ltd.	9,259,018.24			9,259,018.24
Goodwill arising from acquisition of Liangzhu Yixing	9,195,095.23			9,195,095.23
Northwest Zirconium Tube Co., Ltd.	8,300,602.30			8,300,602.30
Acquisition of Shandong Electric Power Engineering Consulting Institute Corp., Ltd. by State Nuclear Electric Power Planning Design & Research Institute Co., Ltd.	8,155,164.35			8,155,164.35
Acquisition of Conch Clean New Energy by Anhui Company	5,521,635.18			5,521,635.18
Acquisition of Erlianhaote Changfeng Xiehe Wind Energy Development Co., Ltd. by Baiyinhua at a premium	4,165,271.57			4,165,271.57
Acquisition of Tongliao Taihe Wind Power Co., Ltd. by Baiyinhua at a premium	3,817,739.09			3,817,739.09
Acquisition of Montenegro Mozula Co., Ltd. at a premium	3,777,078.92		15,306.05	3,761,772.87
Acquisition of Xinhua Group by Xinjiang Company	3,722,469.33			3,722,469.33
Acquisition of 100% equity of Sichuan Ebian Jianeng Hydropower Development Co., Ltd.	3,554,343.29			3,554,343.29
Goodwill of Wuhua Hotel	3,340,473.34			3,340,473.34
Goodwill arising from acquisition of	3,025,197.95			3,025,197.95

Name of investee or matter forming goodwill	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
Zhangping Huakou Hydropower Co., Ltd. by Fujian Investment & Development Group				
Goodwill arising from acquisition of Yingjiang Hongfu Industrial Co., Ltd. by Fujian Investment & Development Group	2,343,811.73			2,343,811.73
Chongqing Baihe Electric Power Co., Ltd.	2,259,768.02			2,259,768.02
Goodwill arising from acquisition of Shouning Niutoushan Grade II Hydropower Co., Ltd. by Niutoushan Company	2,203,600.00			2,203,600.00
SPIC Jiangxi Electric Power Co., Ltd. Qianshan Company	1,630,466.07			1,630,466.07
Absorption and combination of Shandong Tiandi Communication Design Consulting Co., Ltd.	1,149,204.52			1,149,204.52
Transfer of Tianchang Xiehe by Baiyinhua Coal Power to Shanghai Electric Power	784,640.00			784,640.00
Increase in goodwill from acquisition of Turkish EMBA	522,526.60			522,526.60
Merger of Chongqing China Power Self-Energy Technology	518,665.51			518,665.51
Acquisition of 100% equity of Fukushima Xixiang Solar Power via EIKI SHOJI Co., Ltd.	511,680.18			511,680.18
Merger and acquisition of Wenzhou Hongtai by Zhejiang New Energy	395,312.50			395,312.50
SPIC Yuanda Water Service Co., Ltd.	169,785.97			169,785.97
Acquisition of Zhenlai Huaxing Company	143,540.00			143,540.00
Liushuquan Photovoltaic	20,014.79			20,014.79

Name of investee or matter forming goodwill	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
Project				
Qihe County Shanneng New Energy Co., Ltd.	1,680.19		1,680.19	
Hunan Jingyao Distributed Energy Service Co., Ltd.	247.97		247.97	
Guangxi Fukai Liyuan Investment Co., Ltd.	198.67		198.67	
Hubei Yangcai Photovoltaic Technology Co., Ltd.	286,739.34		286,739.34	
Brazil	27,696,990.00		27,696,990.00	
Haian County Guangya New Energy Co., Ltd.	74,050.30		74,050.30	
Jingmen Yinzhong Energy Technology Co., Ltd.	73.01		73.01	
Shouguang Ziquan China Power New Energy Co., Ltd.	1,344.54		1,344.54	
Beijing China Power Tianhong New Energy Technology Co., Ltd.	594.91		594.91	
Dangyang Huaxin Microgrid Energy Development Co., Ltd.	178.66		178.66	
Suzhou Xiehe Wind Power Generation Co., Ltd.	251,500.00		251,500.00	
Xiao County Xiehe Wind Power Co., Ltd.	32,000.00		32,000.00	
Pan County China Power Electric New Energy Co., Ltd.	877.50		877.50	
Equity split circulation right	81,625,405.57		81,625,405.57	
Total	12,317,310,482.08	198,681,530.76	109,987,186.71	12,406,004,826.13

8.30.2 Provision for impairment of goodwill

Name of investee or matter forming goodwill	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
SPIC Pacific Hydro Pty Ltd	673,994,600.00	8,283,498.40		682,278,098.40
Combination of Qingtongxia Aluminum Power Co., Ltd. by Qingtongxia Aluminum Group	234,105,355.60			234,105,355.60
Goodwill of Guazhou, Gansu	44,840,285.01	11,040,994.67		55,881,279.68
Chongqing Yuneng Mining Industry (Group) Co., Ltd.	29,604,296.68			29,604,296.68
Goodwill arising from acquisition of China Power Hongze Thermal Power Co., Ltd.	18,480,392.61			18,480,392.61
Goodwill arising from acquisition of China Power Hongze Biomass Thermal Power Co., Ltd.	13,310,607.39			13,310,607.39
Acquisition of 60% equity of Sichuan Zhongxing Electric Power Development Co., Ltd.	3,060,231.08	6,595,941.01		9,656,172.09
Sichuan Xingding Electric Power Co., Ltd.		199,483,248.64		199,483,248.64
Liaoning Dongfang Power Generation Co., Ltd.		423,907,689.37		423,907,689.37
Goodwill of Li County Huacheng Company		140,422,630.13		140,422,630.13
Goodwill arising from acquisition of Chongqing Meixi River Basin Hydropower Development Co., Ltd. by Fujian		15,500,000.00		15,500,000.00

Name of investee or matter forming goodwill	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
Investment & Development Group				
Goodwill arising from acquisition of Kunming China Power Environmental Protection Power Generation Co., Ltd.		24,032,900.29		24,032,900.29
Total	1,017,395,768.37	829,266,902.51		1,846,662,670.88

Remark 1: The goodwill of the Company's subsidiary SPIC Northeast Electric Power Co., Ltd. was formed by the business combination of the investee Liaoning Dongfang Power Generation Co., Ltd. under common control, and an impairment test was conducted in 2019 according to the accounting standards. RMB 423,907,689.37 was made as a provision for impairment of goodwill based on the Appraisal Report (PBZ [2020] No. 2), approval document by the management and the auditors' report of Liaoning Dongfang Power Generation Co., Ltd. issued by Beijing Zhongqin Yongli Assets Appraisal Co., Ltd.

Remark 2: RMB 8,283,498.40 was increased due to the exchange rate fluctuation for SPIC Overseas Investment Co., Ltd., a subsidiary of the Company.

Remark 3: (1) The power generation of Li County Huacheng Company is lower than expected, and the impairment test is carried out according to the accounting standards. RMB 140,422,630.13 was made as a provision for impairment of goodwill of Li County Huacheng Company based on the appraisal report (WKSPBZ [2020] No. 0204) issued by the appraiser; (2) In the past two years, there has been less water, and the Meixi River hydropower generation is significantly lower than expected, with a shortage in the cash flows. RMB 15,500,000.00 was made as a provision for impairment of goodwill of Chongqing Meixi River Basin Hydropower Development Co., Ltd.; (3) The original production equipment technology of Kunming Environmental Protection is backward and fails to meet the requirements of environmental protection emission indicators, thus the assets are already in the range of inefficient and invalid assets. According to the construction plan of the Kunming Environmental Protection Reconstruction and Expansion Project, the original assets were dismantled and rebuilt, and it is currently in a state of production suspension. Moreover, since 2017, Kunming Environmental Protection has suffered losses continuously. RMB 24,032,900.29 was made as a provision for impairment of goodwill of Kunming China Power Environmental Protection Power Generation Co., Ltd. by Dongguan China Power New Energy Thermal Power Co., Ltd.

Remark 4: Sichuan Zhongxing Power Development Co., Ltd.'s goodwill test method in 2019 is the income method, and the asset evaluation advisory report (CJXZP [2010] No. 2) was issued by Sichuan Jiuxin Assets Appraisal Co., Ltd. After testing, the goodwill suffered an impairment of RMB 6,595,941.01.

Remark 5: Sichuan Xingding Electric Power Co., Ltd.'s goodwill test method in 2019 is the income method, and the asset evaluation advisory report (CJXZP [2020] No. 1) was issued by Sichuan Jiuxin Assets Appraisal Co., Ltd. After testing, the goodwill suffered an impairment of RMB 199,483,248.64.

8.31 Long-term deferred expenses

Item	Balance as at January 1, 2019	Increase in 2019	Amortization in 2019	Other decreases	Balance as at December 31, 2019	Reason for other decreases
Production staff training and early entry fees	248,697,833.00	53,103,226.33	102,671,350.07		199,129,709.26	
Expenses for improvement of leased assets	34,787,941.59	2,163,496.41	17,621,395.93	56,759.79	19,273,282.28	Adjustment to the provisional estimation, and the difference between the previous year's accounting
House renovation costs	82,299,847.34	76,761,401.84	29,082,361.04	2,954,476.30	127,024,411.84	Balance amortization in a lump sum
Rental fees	1,650,303,835.12	362,495,091.23	203,668,218.36	5,243,677.78	1,803,887,030.21	Accounting items adjustment and impairment, etc.
Land transfer payments		316,635,245.31	9,777,648.10		306,857,597.21	
Entry road	17,916,327.94	285,976,781.23	16,694,505.35		287,198,603.82	
Compensation for land acquisition	284,512,483.21	7,634,290.21	12,379,530.55		279,767,242.87	
Financial compensation	70,000,000.00	80,000,000.00	293,024.71		149,706,975.29	
Project costs	126,088,672.25				126,088,672.25	
Financing commission	426,353,867.07	54,645,138.60	372,049,714.34	1,432,798.31	107,516,493.02	Accounting items adjustment and impairment, etc.
Delivery routes	48,296,112.19	40,000,197.41	4,061,261.30		84,235,048.30	
Relocation compensation	20,738,933.53	9,915,019.44	1,271,970.27		29,381,982.70	
Others	700,474,913.72	312,202,965.90	252,327,249.63	2,565,373.22	757,785,256.77	Accounting items adjustment and impairment, etc.
Total	3,710,470,766.96	1,601,532,853.91	1,021,898,229.65	12,253,085.40	4,277,852,305.82	

8.32 Deferred income tax assets and deferred income tax liabilities

8.32.1 Deferred income tax assets and deferred income tax liabilities not presented by net amount after offset

Item	Balance as at December 31, 2019		Balance as at January 1, 2019	
	Deferred income tax assets / Deferred income tax liabilities	Deductible / taxable temporary differences	Deferred income tax assets / Deferred income tax liabilities	Deductible / taxable temporary differences
I. Deferred income tax assets	3,976,640,472.50	21,369,716,917.77	3,200,401,981.23	12,170,746,519.05
Financial assets measured at fair value through current profit or loss	4,650,080.45	20,223,476.84	10,388,490.05	44,977,678.85
Accounts receivable	127,803,541.32	690,821,837.63	142,517,450.97	726,610,108.43
Other receivables	57,551,179.99	256,922,513.66	66,215,876.65	283,757,229.91
Other accounts receivable	2,793,477.70	11,173,910.80	2,793,477.70	11,173,910.80
Inventories	34,937,349.76	207,955,253.00	22,587,567.11	73,148,661.30
Available-for-sale financial assets	72,652,799.98	293,086,299.89	74,709,793.01	306,658,938.50
Held-to-maturity investments	174,991,506.20	529,632,654.15	5,619,883.26	19,560,070.04
Long-term receivables	216,570,623.64	643,691,074.03	139,002,557.23	556,010,228.92
Investment properties	50,378,303.23	197,377,259.46	52,791,696.96	195,562,744.61
Fixed assets	1,013,811,742.53	4,966,148,860.63	810,731,472.10	2,972,542,432.14
Construction in progress	41,599,107.67	191,997,487.10	27,604,591.53	119,818,307.48
Intangible assets	286,838,435.82	1,337,587,728.99	253,423,103.06	1,071,677,016.78
Research and development expenses	1,336,497.66	8,909,984.37	1,336,497.66	8,909,984.37
Financial liabilities measured at fair value through current profit or loss	6,029,250.67	20,097,502.22	8,288,698.00	28,683,757.84
Employee compensation payable	19,043,876.61	69,359,325.87	16,392,148.09	55,370,409.25
Estimated liabilities	43,524,048.88	161,653,599.92	38,590,056.08	105,187,219.83
Deferred income	252,636,792.41	1,020,220,648.10	241,136,931.50	755,677,977.33
Advances to suppliers	22,808,068.14	91,801,962.14	22,596,928.31	90,920,674.43
Financial assets held for trading	37,189,622.96	148,758,491.83	13,423,910.46	
Financial liabilities held for trading	273,925.00	1,095,700.00	374,436.49	
Creditor's right investment	28,966,057.67	114,435,160.49	28,324,133.62	
Right-of-use assets	73,752,764.02	250,358,307.88		
Others	707,982,406.33	3,339,089,340.18	-225,836,349.26	-740,716,007.23
Deductible losses	698,519,013.86	6,797,318,538.59	1,447,388,630.65	5,436,042,170.99
II. Deferred income tax liabilities	1,505,414,322.29	6,154,102,121.48	1,151,884,417.93	4,849,968,944.02
Financial assets measured at fair	1,101,601.30	49,299,751.89	58,212,063.97	230,628,362.89

Item	Balance as at December 31, 2019		Balance as at January 1, 2019	
	Deferred income tax assets / Deferred income tax liabilities	Deductible / taxable temporary differences	Deferred income tax assets / Deferred income tax liabilities	Deductible / taxable temporary differences
value through current profit or loss				
Inventories	4,897.72	32,651.50	36.05	32,627.43
Available-for-sale financial assets	522,814,833.36	2,113,564,586.42	426,649,903.99	1,706,599,615.58
Held-to-maturity investments	36,741,579.68	122,471,932.28	22,362,943.00	74,543,144.00
Long-term equity investments	6,180,278.70	24,721,114.80	4,453,149.24	17,812,596.96
Investment properties	624,679,493.10	2,693,204,676.57	118,340,520.63	473,362,082.52
Fixed assets	1,382,576,819.50	5,277,000,959.53	1,393,251,320.96	5,170,788,377.53
Construction in progress	26,647,013.59	88,829,159.19	332,979.62	1,114,704.10
Intangible assets	192,285,635.70	828,745,488.25	137,658,883.85	602,811,231.40
Research and development expenses	54,164,163.63	206,682,434.70	54,237,112.76	206,952,616.04
Financial liabilities measured at fair value through current profit or loss	4,810,590.21	29,155,092.18	110,020.99	440,083.96
Deferred income	161,570.40	646,281.58	194,318,495.48	764,368,792.99
Advances to suppliers	4,401,173.94	16,300,644.23	1,318,850.00	4,396,166.67
Financial assets held for trading	326,822.23	1,307,288.92		
Right-of-use assets	71,281,188.19	241,927,999.14		
Others	-1,422,763,338.96	-5,539,787,939.70	-1,259,361,862.61	-4,403,881,458.05

8.32.2 Breakdowns of unrecognized deferred income tax assets

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Deductible temporary differences	13,845,694,654.87	12,919,652,418.76
Deductible losses	25,138,223,174.63	39,088,026,539.28
Total	38,983,917,829.50	52,007,678,958.04

8.32.3 Deductible losses on unrecognized deferred income tax assets expired in the following years

Year	Balance as at December 31, 2019	Balance as at January 1, 2019	Remarks
2019		8,781,617,089.64	
2020	2,893,402,345.88	11,231,037,458.66	
2021	3,297,072,313.73	9,612,949,738.37	
2022	5,717,540,225.54	4,006,160,513.66	
2023	6,382,361,956.42	5,456,261,738.95	
2024	6,847,846,333.06		
Total	25,138,223,174.63	39,088,026,539.28	

8.33 Other non-current assets

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Entrusted loans	2,174,077,777.52	3,552,320,344.46
Reclassification of value-added tax payable	14,507,836,043.56	14,192,872,453.30
Prepayment for engineering equipment	6,178,843,214.72	424,157,128.92
Nuclear fuel	2,227,883,166.94	
Prepayment for aluminum ingot purchase index	1,603,463,109.36	2,000,000,000.00
Land use rights of Luojing Power Plant	814,825,025.62	814,825,025.62
Derivative financial assets	682,898,995.13	36,260,359.00
Suspension of being presented as expenses by the interest related to the project expenses of the Yijiang Project	566,433,286.45	398,843,968.42
Transfer fees of Yang Plant Land	511,242,863.17	511,242,863.17
Discount of poverty alleviation commitment and obligation	309,107,862.59	
Retired generator units	235,651,791.82	235,651,791.82
Payment for spare parts and components	168,210,809.88	162,172,183.02
House payment	105,274,892.61	
Equity payment	100,000,000.00	
Pending assets	80,949,084.25	80,949,084.25
Security deposit	54,223,193.58	42,725,950.09
Advance payment for land	51,268,800.00	49,509,600.00
Compensation	46,638,337.00	46,638,337.00
Cash Flow Hedge		110,439,210.82
Fair Value Hedge		99,494,201.56
Others	734,744,583.40	936,998,580.25
Total	31,153,572,837.60	23,695,101,081.70

8.34 Short-term borrowings

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Credit borrowings	127,838,227,708.22	111,991,788,465.32
Mortgage borrowings	173,000,000.00	253,000,000.00
Guaranteed borrowings	16,597,201,601.66	9,062,208,774.45
Pledged borrowings	3,728,033,409.23	4,711,898,038.00
Total	148,336,462,719.11	126,018,895,277.77

8.35 Financial liabilities measured at fair value through current profit or loss

Item	Fair value as at December 31, 2019	Fair value as at January 1, 2019
Others		5,000,000.00
Total		5,000,000.00

8.36 Derivative financial liabilities

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Forward foreign exchange settlement and sale business	196,920.60	181,134.23
Cash flow hedging (CCS + IRS)	50,515,898.99	19,678,270.67
Cash flow hedging reserve	11,635,410.00	
HSBC cross currency swap	22,919,213.33	115,367,974.65
Adjustment to futures floating profit or loss		8,579,600.00
Fair Value Hedge	4,883,855.38	
Cash Flow Hedge	163,395,795.87	
3 Interest rate swap	11,254,885.44	41,761.00
2 Energy swap	1,342,006.77	13,137,557.00
Total	266,143,986.38	156,986,297.55

8.37 Notes payable

Category	Balance as at December 31, 2019	Balance as at January 1, 2019
Bank acceptance bill	2,803,182,450.25	1,918,523,698.24
Commercial acceptance bill	10,779,630,366.48	7,142,235,068.14
Total	13,582,812,816.73	9,060,758,766.38

8.38 Accounts payable

Aging	Balance as at December 31, 2019	Balance as at January 1, 2019
Within 1 year (inclusive)	36,409,614,526.32	33,659,193,456.85
1 - 2 years (inclusive)	9,871,387,705.61	11,926,934,436.89
2 - 3 years (inclusive)	4,157,786,488.17	3,579,604,948.92
Over 3 years	3,903,927,994.10	3,136,685,830.49
Total	54,342,716,714.20	52,302,418,673.15

Significant accounts payable with aging of over 1 year:

Creditor	Balance as at December 31, 2019	Reason for arrearage
The Fifth Institute of Geological and Mineral Exploration of Qinghai Province	510,689,813.14	Financial strain
XEMC Windpower Co., Ltd.	451,763,861.86	Financial strain
Xinjiang Goldwind Science & Technology Co., Ltd.	341,327,038.93	Financial strain
Zhuhai Singyes Renewable Technology Co., Ltd.	211,694,250.02	Settlement period not started
Ningbo Jiangong Jianle Engineering Co., Ltd.	181,977,360.27	Financial strain
Fuyao Electric Power Engineering Design (Shanghai) Co., Ltd.	140,000,000.00	Settlement period not started
Tianjin Xiehe Huaxing Wind Power Equipment Co., Ltd.	119,142,756.29	Financial strain
No. 5 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	103,673,464.88	Settlement period not started
Jiangsu Electric Power Construction No. 1 Engineering Company of CEEC	102,960,822.95	Warranty period not due
Guodian United Power Technology	71,974,500.00	Settlement period not

Creditor	Balance as at December 31, 2019	Reason for arrearage
Company Ltd.		started
Payables to Xinjiang Goldwind Science & Technology Co., Ltd. Xuanhua Branch by Xuanhua New Energy	66,504,481.59	Financial strain
Hami Goldwind Wind Power Equipment Co., Ltd.	60,269,850.00	Settlement period not started
HEAG Windpower Co., Ltd.	59,743,140.00	Settlement period not started
CCCC First Harbor Engineering Co., Ltd.	57,661,771.05	Settlement period not started
EnvisionEnergyInternationalLimited	56,922,084.07	Failure in settlement
China Materials Storage and Transportation Corporation	54,882,000.00	Settlement period not started
Shanghai Electric Wind Power Equipment Co., Ltd.	54,700,000.00	Financial strain
Guangdong Mingyang Wind Power Industry Group Co., Ltd.	50,935,500.00	Settlement period not started
Gezhouba Group's Electric Power Co., Ltd	48,930,504.26	Payment terms not met
Dongfang Electric Co., Ltd.	48,639,000.00	Settlement period not started
State Nuclear Electric Power Planning Design & Research Institute Co., Ltd.	46,515,425.69	Settlement period not started
Harbin Boiler Company Limited	44,316,000.00	Settlement period not started
Mingyang Smart Energy Group Co., Ltd.	43,773,192.80	Warranty period not due
Nanjing Haide Electric Power Technology Co., Ltd.	41,146,231.07	Warranty period not due
Hunan Thermal Power Construction Co., Ltd. of CEEC	38,199,841.81	Warranty period not due
Jielv Heavy Industries Co., Ltd.	37,445,832.00	Settlement period not started
3rd Northeast Electric Power Engineering Co., Ltd of CEEC	37,395,583.39	Warranty period not due
Harbin Turbine Company Limited	36,782,093.56	Settlement period not started
Hami Yuancheng Erdaohu Photovoltaic Power Generation Project Department of Sinohydro Engineering Bureau 4 Co., Ltd.	34,622,393.88	Settlement period not started
Shanghai Electric Group Co., Ltd.	33,000,000.00	Financial strain
Dongfang Turbine Co., Ltd. of Dongfang Electric Corporation	31,292,179.80	Settlement period not started
Myanmar Asia World Limited	28,386,492.48	Failure in settlement
Xiamen Haizhizhou Hydropower Equipment Company	27,866,079.83	Financial strain
Jiangsu Power Design Institute Co., Ltd.	26,835,251.87	Settlement period not started
CCCC First Harbor Consultants Co., Ltd.	26,311,786.71	Settlement period not started
Xinjiang Haiwei New Energy Power Engineering Co., Ltd.	25,825,444.70	Financial strain
ThyssenKrupp Resource Technologies AG	24,600,251.60	Settlement period not started
Harbin Electric Co., Ltd.	24,447,132.00	Settlement period not

Creditor	Balance as at December 31, 2019	Reason for arrearage
		started
China Energy Engineering Group Anhui Electric Power Design Institute Co., Ltd.	24,105,751.78	Settlement period not started
Jilin Xiehe Electric Power Engineering Co., Ltd.	23,566,376.00	Settlement period not started
Shanghai SUS Environment Co., Ltd.	22,590,617.80	Financial strain
Hiconics Eco-energy Technology Co., Ltd.	22,210,000.00	Settlement period not started
Pinggao Group Co., Ltd.	18,851,624.00	Financial strain
BOE Technology Group Co., Ltd.	18,755,241.68	Settlement period not started
Beijing Yili New Energy Co., Ltd.	17,664,832.45	Settlement period not started
Jiangsu Huize Electric Power Engineering Co., Ltd.	17,423,095.00	Settlement period not started
General contracting payment to China Energy Engineering Group Shanxi Electric Power Construction No. 2 Company	17,042,487.91	Warranty period not due
Xuchang Xuji Wind Power Technology Co., Ltd.	16,254,000.00	Financial strain
PowerChina Jiangsu No. 1 Engineering Co., Ltd.	15,620,381.58	Settlement period not started
Beijing China Power Longyuan Environmental Protection Engineering Co., Ltd.	15,485,581.20	Settlement period not started
The IT Electronics Eleventh Design&Research Institute Scientific and Technological Engineering Corporation Limited	15,260,961.31	Financial strain
China Railway 14th Bureau Group Co., Ltd.	14,879,502.00	Settlement period not started
Shanghai HEAG Financial Leasing Co., Ltd.	14,327,300.00	Financial strain
CMEC Wuxi Mechanical Equipment Engineering Co., Ltd.	14,285,327.77	Settlement period not started
China Railway 19 Bureau Group Co., Ltd.	14,194,959.92	Settlement period not started
Jinko Solar Co., Ltd.	13,862,940.00	Proportionate payment
CRRC Lanzhou Co., Ltd.	13,580,261.00	Settlement period not started
Sinohydro Bureau 13 Co., Ltd. Electromechanical Installation Machinery Factory	13,459,164.77	Settlement period not started
Shanghai Power Generation Equipment Research Institute	13,450,015.24	Financial strain
Sungrow Power Supply Co., Ltd.	12,429,267.50	Payment terms not met
Hebei Electric Power Construction No. 1 Engineering Company	11,796,900.00	Settlement period not started
Anhui Electric Power Construction No. 2 Engineering Company of CEEC	11,778,410.00	Payment terms not met
Sinohydro Engineering Bureau 4 Co., Ltd. No. 7 Company	11,267,996.86	Settlement period not started
Hydrochina Northwest Engineering	11,220,000.00	Settlement period not

Creditor	Balance as at December 31, 2019	Reason for arrearage
Corporation Limited		started
Changjiang Institute of Survey, Planning, Design and Research Co., Ltd.	11,146,997.50	Settlement period not started
Shanghai Electric Wind Power Group Co., Ltd.	11,000,000.00	Financial strain
Sinovel Wind Group Co., Ltd.	10,999,100.00	Settlement period not started
Tongliao Taihua Horticulture Co., Ltd.	10,903,228.67	Financial strain
ChinaCoal Pingshuo Coal Company Limited	10,885,134.17	Settlement period not started
Shanxi Electric Power Exploration Design Institute Co., Ltd of CEEC	10,865,350.70	Warranty period not due
72 Dafeng District Tidal Flat Ocean and Fishery Bureau	10,862,100.00	Failure in settlement
SANY Heavy Energy Co., Ltd.	10,750,000.00	Financial strain
Henan D.R. Construction Group Corporation	10,721,374.20	Settlement period not started
Yunnan Heng An Electric Power Engineering Co., Ltd.	10,719,311.60	Settlement period not started
Changchun Longfa New Energy Co., Ltd.	10,541,394.41	Settlement period not started
Trina Solar Co., Ltd.	10,314,142.32	Financial strain
Shenyang Railway Survey Design Consulting Company Limited	10,305,007.10	Financial strain
TLT Turbo (Sichuan) Co., Ltd.	10,239,725.24	Financial strain
Inner Mongolia No. 1 Electric Power Construction Engineering Co., Ltd.	10,189,685.23	Warranty period not due
Harbin Air Conditioning Co., Ltd.	10,000,000.00	Settlement period not started
Total	3,988,958,959.41	

8.39 Advances from customers

Aging	Balance as at December 31, 2019	Balance as at January 1, 2019
Within 1 year (inclusive)	10,111,838,402.54	9,624,407,392.52
Over 1 year	3,755,429,560.76	4,130,357,124.31
Total	13,867,267,963.30	13,754,764,516.83

Significant advances from customers with aging of over 1 year

Creditor	Balance as at December 31, 2019	Reason for absence of carry-forward
CGN Lufeng Nuclear Power Co., Ltd.	1,644,650,863.28	Settlement period not started
Xinjiang Zhundong Wucai Bay North Second Power Plant Co., Ltd.	27,987,562.33	Settlement period not started
China National Technical Imp. & Exp. Corp.	26,562,184.27	Settlement period not started
Zhuhai Hengqin New District Shizimen International Financial Center Building Construction Co., Ltd.	18,686,355.44	Actually unamortized capacity fee

Creditor	Balance as at December 31, 2019	Reason for absence of carry-forward
Shanghai Netsun Information Technology Co., Ltd.	13,401,570.00	Settlement period not started
Total	1,731,288,535.32	

8.40 Contractual liabilities

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Advance payment for services not reached	68,288,762.47	138,505,779.34
Total	68,288,762.47	138,505,779.34

8.41 Absorption of deposits and interbank deposit

Item	Balance as at December 31, 2019	Balance as at December 31, 2018
Demand deposits	25,048,256.16	42,814,860.29
Company	25,048,256.16	42,814,860.29
Total	25,048,256.16	42,814,860.29

8.42 Employee compensation payable

8.42.1 Presentation of employee compensation payable

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
I. Short-term compensation	1,613,605,359.30	26,446,309,344.93	25,370,830,344.74	2,689,084,359.49
II. Post-employment benefits - defined contribution plans	235,314,908.79	3,464,917,742.24	3,565,652,818.84	134,579,832.19
III. Dismissal welfare	1,757,268.95	48,743,492.17	26,031,467.85	24,469,293.27
IV. Other benefits maturing within one year				
V. Others	164,256.46	164,035,159.66	163,957,454.53	241,961.59
Total	1,850,841,793.50	30,124,005,739.00	29,126,472,085.96	2,848,375,446.54

8.42.2 Presentation of short-term compensation

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
I. Wages, bonuses, allowances and subsidies	770,579,697.32	19,484,269,206.24	18,515,761,495.88	1,739,087,407.68
II. Employee benefits	1,362,610.20	1,625,400,347.81	1,625,400,560.12	1,362,397.89
III. Social insurance premiums	124,664,730.96	2,082,760,907.40	2,047,897,301.76	159,528,336.60
Including: medical insurance premiums	120,437,792.28	1,863,216,109.51	1,828,154,835.87	155,499,065.92
Work-related injury insurance	2,403,061.02	118,318,977.69	118,649,535.25	2,072,503.46

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
premiums				
Maternity insurance premiums	1,091,574.11	90,119,214.44	89,988,091.03	1,222,697.52
Others	732,303.55	11,106,605.76	11,104,839.61	734,069.70
IV. Housing provident fund	3,574,251.46	1,609,249,510.05	1,608,678,655.37	4,145,106.14
V. Labor union expenditure and employee education expenses	677,839,075.98	724,982,301.49	648,128,144.58	754,693,232.89
VI. Short-term compensated absence	18,063,443.83	116,481.90	5,420,726.22	12,759,199.51
VII. Short-term profit-sharing plan				
VIII. Other short-term compensation	17,521,549.55	919,530,590.04	919,543,460.81	17,508,678.78
Total	1,613,605,359.30	26,446,309,344.93	25,370,830,344.74	2,689,084,359.49

8.42.3 Presentation of defined contribution plans

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
I. Basic endowment insurance premiums	55,882,336.54	2,490,776,291.85	2,506,030,252.15	40,628,376.24
II. Unemployment insurance premiums	10,589,641.42	89,450,255.40	93,506,388.66	6,533,508.16
III. Enterprise annuity payments	168,720,298.60	883,265,845.84	964,643,769.78	87,342,374.66
IV. Others	122,632.23	1,425,349.15	1,472,408.25	75,573.13
Total	235,314,908.79	3,464,917,742.24	3,565,652,818.84	134,579,832.19

8.43 Taxes and surcharges payable

Item	Balance as at January 1, 2019	Amount payable in 2019	Amount paid in 2019	Balance as at December 31, 2019
Value-added tax (VAT)	2,095,251,448.32	10,154,238,349.56	10,306,388,261.37	1,943,101,536.51
Consumption tax	5,469,914.13	11,994,363.49	15,530,951.02	1,933,326.60
Resource tax	179,940,224.86	1,252,495,349.86	1,309,199,104.79	123,236,469.93
Urban maintenance and construction tax	62,743,178.54	515,305,503.39	517,696,589.43	60,352,092.50
Enterprise income tax	1,169,540,745.45	6,485,959,622.02	5,559,465,416.43	2,096,034,951.04
Property tax	73,228,048.79	545,443,138.37	532,266,032.91	86,405,154.25
Vehicle and	188,065.13	7,813,944.63	8,026,974.01	-24,964.25

Item	Balance as at January 1, 2019	Amount payable in 2019	Amount paid in 2019	Balance as at December 31, 2019
vessel use tax				
Land use right tax	84,087,663.08	784,329,200.51	806,002,910.36	62,413,953.23
Tariff		20,845,937.60	20,845,937.60	
Individual income tax	299,674,572.71	677,910,819.36	625,535,353.10	352,050,038.97
Stamp duty	54,628,313.89	304,765,627.26	267,371,205.27	92,022,735.88
Deed tax	1,780,060.04	67,043,924.62	42,348,472.55	26,475,512.11
Farmland occupancy tax	79,671,838.73	538,417,840.13	617,027,185.13	1,062,493.73
Land value-added tax	15,775,977.30	27,944,598.49	34,754,466.35	8,966,109.44
Educational surcharge (including local education surcharge)	57,584,428.82	489,688,504.43	486,014,586.13	61,258,347.12
Environmental protection tax	50,941,841.05	298,562,589.65	293,489,903.87	56,014,526.83
Water resource tax	14,411,154.73	214,947,071.41	180,486,716.51	48,871,509.63
Other taxes	6,682,781.37	520,231,828.76	495,719,488.25	31,195,121.88
Pollution discharge fee	16,474,113.08	8,032,057.07	16,386,179.03	8,119,991.12
Water resource fee	344,375,154.14	474,907,451.03	486,150,138.40	333,132,466.77
Reservoir maintenance fund	599,535,178.07	587,498,562.57	565,264,816.54	621,768,924.10
Mineral resources compensation	1,297,390.68	-1,232,061.08		65,329.60
River management fee	2,726,265.56	-2,854.25	70.84	2,723,340.47
Flood control construction fund	2,776,031.68	2,834,403.32	2,860,898.78	2,749,536.22
Soil and water loss prevention fee	20,584,276.83	86,670,689.70	81,488,443.41	25,766,523.12
Water conservancy construction fund	11,119,776.30	62,230,701.96	63,005,558.39	10,344,919.87
Electricity supervision fee	135,627.81			135,627.81
Coal price adjustment fund	2,086,930.70	-2,086,930.70		
Other policy-related	6,984,832.91	35,753,103.78	38,106,465.62	4,631,471.07

Item	Balance as at January 1, 2019	Amount payable in 2019	Amount paid in 2019	Balance as at December 31, 2019
fees				
Total	5,259,695,834.70	24,172,543,336.94	23,371,432,126.09	6,060,807,045.55

8.44 Other payables

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Interest payable	5,244,256,650.10	5,632,021,546.86
Dividends payable	1,260,362,939.62	636,554,715.65
Other payables	19,147,620,908.72	16,997,028,546.06
Total	25,652,240,498.44	23,265,604,808.57

8.44.1 Interest payable

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Interest on long-term borrowings with the interest paid thereon by installments and the principal paid on the maturity date	2,379,136,542.39	2,071,875,985.84
Interest on enterprise bonds	1,639,400,251.37	1,894,646,580.02
Interest payable on short-term borrowings	775,716,366.43	1,026,433,206.57
Other interest	450,003,489.91	639,065,774.43
Total	5,244,256,650.10	5,632,021,546.86

8.44.2 Dividends payable

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Common stock dividends	1,260,362,939.62	636,554,715.65
Total	1,260,362,939.62	636,554,715.65

8.44.3 Other payables

(1) Presentation of other payables by nature

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Project quality deposit reserved	4,764,579,304.03	4,226,538,854.13
Warranty and security deposits other than reserved project quality deposits	3,248,508,554.73	3,868,072,497.89
Engineering and equipment payments	495,699,586.04	529,724,956.01
Employee social insurance premiums	428,151,142.27	288,703,036.11
Others	10,210,682,321.65	8,083,989,201.92
Total	19,147,620,908.72	16,997,028,546.06

(2) Other significant payables with aging of over 1 year

Creditor	Balance as at December 31, 2019	Reason for arrearage
Mutual assistance funds	337,274,400.43	Payment while recovery by the government
Jiangsu Electric Power Construction No. 3 Engineering Company of CEEC	76,449,063.09	Quality deposit and guarantee deposit
Capital Engineering & Research Incorporation Ltd.	64,307,680.90	Engineering retention fund
Baoshan Iron & Steel Co., Ltd.	62,050,640.10	Land fees payable
Two investment properties	59,782,088.97	Related parties
Asian Company	53,145,120.43	Failure in settlement
Ningxia Hongdunzi Coal Industry Co., Ltd.	42,457,500.00	Coal payment capacity replacement
Nanyang Fangda - Guanzhuang project operation and maintenance fees	39,877,358.64	Advanced issuance of operation and maintenance fees for the "three supply and one industry" Guanzhuang Project
CSIC (Chongqing) Haizhuang Windpower Equipment Co., Ltd.	39,540,000.00	Failure in settlement
CLP New Energy: Hongfu Industrial: Fuzhou Haizhizhou Hydropower Equipment Co., Ltd.	35,499,600.00	Failure in settlement
(Chaoyang Herun) SPIC Electric Power Engineering Co., Ltd.	33,877,110.96	(Chaoyang Herun) provisional estimated turnover amount
Mulei County Dongfang Minsheng New Energy Co., Ltd.	32,500,000.00	Collection fund for pooling station
Xinyuanshun Company	28,202,438.26	Financial strain
Hong Zhen	26,301,104.21	Failure in settlement
Jiangxi Changda Electric Power Industrial Development Corporation	23,955,400.00	Unexpired payment
Changjiang Institute of Survey, Planning, Design and Research Co., Ltd.	23,454,500.00	Failure in settlement
SPIC Henan Electric Power Co., Ltd.	21,239,823.00	Earlier cost of project
Hubei Huawang Electric Engineering Co., Ltd.	20,601,327.94	Project payment
CCCC Fourth Harbor Engineering Co., Ltd.	19,582,521.09	Quality deposit and guarantee deposit
Guangdong Mingyang Wind Power Industry Group Co., Ltd.	19,432,500.00	Failure to meet the payment terms agreed in the contract
No. 5 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	18,620,691.95	Warranty nature, payment term not started

Creditor	Balance as at December 31, 2019	Reason for arrearage
Lin Lvzhou	18,071,856.00	Failure in settlement
(Qinghe Power Generation) Housing rent subsidies with social insurance premiums accrued	17,422,562.13	Payment in dispute
Mulei County Qianxin Energy Development Co., Ltd.	16,250,000.00	Collection fund for pooling station
Mulei County Dun'an Wind Power Co., Ltd.	16,250,000.00	Collection fund for pooling station
Mulei County Xinke Wind Energy Co., Ltd.	16,250,000.00	Collection fund for pooling station
Xinjiang Yue Hydropower Energy Co., Ltd.	16,250,000.00	Collection fund for pooling station
Xishan Village Committee	14,907,760.00	Failure in settlement
China Power New Energy: Hongfu Industrial: Yunnan Hongxia Trading Co., Ltd.	14,872,966.36	Failure in settlement
(Benxi Thermal Power) Financial Settlement Center of Mingshan District, Benxi City	14,093,696.39	Refund of city supporting fee received
(Pingzhuang Thermal Power) Hongshan Power Plant	14,000,000.00	Insufficient funds
Yancheng Chengda Industrial Company	13,975,552.50	Quality deposit and guarantee deposit
Sinohydro Engineering Bureau 4 Co., Ltd.	13,852,013.89	Failure in settlement
Sinohydro Bureau 11 Co., Ltd.	13,475,586.74	Failure in settlement
China Railway 19 Bureau Group Co., Ltd. (ZH-01 Standard)	12,273,014.20	Warranty nature, payment term not started
HydroChina Zhongnan Engineering Corporation	12,187,574.32	Failure to meet the payment terms agreed in the contract
Sinohydro Engineering Bureau 14 Co., Ltd.	12,169,740.39	Failure in settlement
Sinohydro Bureau 8 Co., Ltd.	12,109,870.00	Unsettled project payment and warranty deposit for Shangjianpo project
(Dongteng) Liaoning Electric Power Co., Ltd.	11,690,000.00	Unilateral pending account
Sinohydro Bureau 10 Co., Ltd.	11,296,361.40	Financial strain
Sinohydro Bureau 8 Co., Ltd.	10,753,060.38	Failure in settlement
Equity transfer reserve margin for Xinjiang Kaiyuan Yida Investment Management Co., Ltd.	10,668,544.50	Payment terms not met

Creditor	Balance as at December 31, 2019	Reason for arrearage
Shanghai Electric Wind Power Group Co., Ltd.	10,256,250.00	Fan warranty for 5 years
Quality warranty reserve for Xinjiang Kaiyuan Yida Investment Management Co., Ltd.	10,228,727.76	Payment terms not met
Total	1,391,456,006.93	

8.45 Liabilities held for trading

Item	Book value as at December 31, 2019	Fair value as at December 31, 2019	Estimated disposal costs	Estimated disposal time
Liabilities held for sale of CLP Shentou	4,080,297,086.02	4,080,297,086.02	Equity transfer with no disposal costs	Multi-party negotiations on personnel placement
Total	4,080,297,086.02	4,080,297,086.02		

8.46 Non-current liabilities maturing within one year

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Long-term borrowings maturing within one year	46,074,850,160.82	35,297,751,882.15
Bonds payable maturing within one year	17,520,365,871.62	26,793,889,229.20
Long-term payables maturing within one year	18,468,246,364.61	16,136,205,780.10
Leasing liabilities maturing within one year (applicable to the New Standards for Leases)		
Other long-term liabilities maturing within one year	497,558,624.78	845,750,008.30
Total	82,561,021,021.83	79,073,596,899.75

8.47 Other current liabilities

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Short-term financing bonds payable	39,041,516,591.00	38,819,414,926.18
Tax payable - reclassification of output tax to be carried forward	192,472,613.04	806,396,328.43
Short-term bonds payable within the Group	13,658,483,409.00	14,369,414,926.18
Others	874,164,419.77	450,324,019.28
Total	53,766,637,032.81	54,445,550,200.07

Changes in short-term bonds payable:

Bond name	Face value	Date of issue	Bond maturity	Issuing amount	Balance as at January 1, 2019	Amount issued in 2019	Interest accrued at face value	Premium and discount amortized	Amount repaid in 2019	Balance as at December 31, 2019
19 SNPTC CP001	4,000,000,000.00	2019-9-26	365 days	4,000,000,000.00	4,000,000,000.00		41,123,287.67		2,000,000,000.00	2,000,000,000.00
18 SNPTC SCP002	1,500,000,000.00	2018-7-24	270 days	1,500,000,000.00	1,500,000,000.00		9,588,785.27		1,500,000,000.00	
18 SDNPC SCP001	1,500,000,000.00	2018-11-12	270 days	1,500,000,000.00	1,500,000,000.00		7,791,780.82		1,500,000,000.00	
19 SDNPC SCP002	1,500,000,000.00	2019-6-14	270 days	1,500,000,000.00		1,500,000,000.00		35,775,000.00		1,500,000,000.00
19 SDNPC SCP001	500,000,000.00	2019-8-8	270 days	500,000,000.00		500,000,000.00		13,125,000.00		500,000,000.00
18 RHRZ SCP002	1,000,000,000.00	2018-4-18	270 days	1,000,000,000.00	1,000,000,000.00		32,765,753.42		1,000,000,000.00	
18 RHRZ SCP005	1,000,000,000.00	2018-7-5	260 days	1,000,000,000.00	1,000,000,000.00		22,643,835.62		1,000,000,000.00	
18 RHRZ SCP006	500,000,000.00	2018-7-18	270 days	500,000,000.00	500,000,000.00		10,895,890.41		500,000,000.00	
18 RHRZ SCP007	1,000,000,000.00	2018-7-24	220 days	1,000,000,000.00	1,000,000,000.00		20,604,657.53		1,000,000,000.00	
18 RHRZ SCP009	1,000,000,000.00	2018-10-24	270 days	1,000,000,000.00	1,000,000,000.00		7,783,013.70		1,000,000,000.00	
18 RHRZ SCP011	500,000,000.00	2018-12-12	35 days	500,000,000.00	500,000,000.00		961,643.84		500,000,000.00	
18 KFZL SCP003	1,000,000,000.00	2018-5-21	245 days	1,000,000,000.00	1,000,000,000.00		39,712,328.77		1,000,000,000.00	
18 KFZL SCP005	600,000,000.00	2018-8-6	240 days	600,000,000.00	600,000,000.00		17,166,575.34		600,000,000.00	
RHZL2017086-19SCP007	500,000,000.00	2019-6-6	365 days	500,000,000.00		500,000,000.00	8,847,874.71			500,000,000.00
RHZL2017086-19SCP009	500,000,000.00	2019-7-12	365 days	500,000,000.00		500,000,000.00	6,776,955.78			500,000,000.00
RHZL2017086-19SCP011	500,000,000.00	2019-8-23	365 days	500,000,000.00		500,000,000.00	5,098,116.38			500,000,000.00
RHZL2017086-19SCP013	1,000,000,000.00	2019-9-20	365 days	1,000,000,000.00		1,000,000,000.00	9,557,127.20			1,000,000,000.00
RHZL2019050-19 RHRZ SCP014	1,000,000,000.00	2019-11-13	365 days	1,000,000,000.00		1,000,000,000.00	3,957,301.01			1,000,000,000.00
RHZL2019050-19 RHRZ SCP016	500,000,000.00	2019-11-20	365 days	500,000,000.00		500,000,000.00	1,356,307.55			500,000,000.00
RHZL2019050-19 RHRZ SCP015	500,000,000.00	2019-11-20	365 days	500,000,000.00		500,000,000.00	1,218,557.58			500,000,000.00
RHZL2019050-19 RHRZ SCP017	500,000,000.00	2019-12-13	365 days	500,000,000.00		500,000,000.00	502,873.57			500,000,000.00
15 SPIC SCP007					-0.56				-0.56	
18 SPIC SCP010	2,400,000,000.00	2018-4-19	266 days	2,400,000,000.00	50,000,000.00		1,175,000.00		50,000,000.00	
18 SPIC SCP011	2,000,000,000.00	2018-5-2	266 days	2,000,000,000.00	700,000,000.00		16,450,000.00		700,000,000.00	
18 SPIC SCP014	3,000,000,000.00	2018-6-1	260 days	3,000,000,000.00	700,000,000.00		16,450,000.00		700,000,000.00	
18 SPIC SCP017	3,500,000,000.00	2018-6-28	192 days	3,500,000,000.00	340,000,000.00		7,990,000.00		340,000,000.00	
18 SPIC SCP019	1,800,000,000.00	2018-7-16	270 days	1,800,000,000.00	100,000,000.00		2,350,000.00		100,000,000.00	
18 SPIC SCP020	1,800,000,000.00	2018-7-18	267 days	1,800,000,000.00	400,000,000.00		9,400,000.00		400,000,000.00	
18 SPIC SCP023	1,000,000,000.00	2018-8-10	213 days	1,000,000,000.00	1,000,000,000.00		23,500,000.00		1,000,000,000.00	
18 SPIC SCP025	3,000,000,000.00	2018-9-3	186 days	3,000,000,000.00	400,000,000.00		9,400,000.00		400,000,000.00	
18 SPIC SCP029	3,000,000,000.00	2018-9-17	177 days	3,000,000,000.00	2,807,414,926.74		65,974,250.78		2,807,414,926.74	
18 SCP037 (RMB 3 billion)	3,000,000,000.00	2018-11-23	60 days	3,000,000,000.00	3,000,000,000.00		5,875,000.00		3,000,000,000.00	
18 SCP040 (RMB 2 billion)	2,000,000,000.00	2018-12-25	58 days	2,000,000,000.00	2,000,000,000.00		3,916,666.67		2,000,000,000.00	
19 SCP021 (RMB 1.8 billion)	1,800,000,000.00	2019-6-17	267 days	1,800,000,000.00		1,800,000,000.00	55,800,000.00			1,800,000,000.00
19 SCP023 (RMB 2.5 billion)	2,500,000,000.00	2019-8-14	147 days	2,500,000,000.00		2,500,000,000.00	58,750,000.00			2,500,000,000.00
19 SCP024 (RMB 2.5 billion)	2,500,000,000.00	2019-8-21	177 days	2,500,000,000.00		2,177,026,591.00	18,333,333.33			2,177,026,591.00
19 SCP026 (RMB 2.5 billion)	2,500,000,000.00	2019-9-9	177 days	2,500,000,000.00		2,500,000,000.00	13,750,000.00			2,500,000,000.00
19 SCP032 (RMB 2.2 billion)	2,200,000,000.00	2019-11-12	131 days	2,200,000,000.00		2,200,000,000.00	45,100,000.00			2,200,000,000.00
18 SCP issued by the Group to China Power International	1,042,000,000.00	2018-7-2	180 days	1,042,000,000.00	1,042,000,000.00		21,361,000.00		1,042,000,000.00	
19 MTN issued by the Group to CLP	196,000,000.00	2019-10-21	365 days	277,000,000.00		277,000,000.00	5,678,500.00			277,000,000.00

Bond name	Face value	Date of issue	Bond maturity	Issuing amount	Balance as at January 1, 2019	Amount issued in 2019	Interest accrued at face value	Premium and discount amortized	Amount repaid in 2019	Balance as at December 31, 2019
19 China Power International SCP	700,000,000.00	2019-9-18	174 days	700,000,000.00		700,000,000.00	6,150,000.00			700,000,000.00
19 China Power International SCP001	500,000,000.00	2019-9-3	270 days	500,000,000.00		500,000,000.00	10,250,000.00			500,000,000.00
18 Yuanda Environmental Protection SCP001	250,000,000.00	2018-11-16	270 days	250,000,000.00	250,000,000.00		1,354,794.52		250,000,000.00	
CP issued by the Group to Henan Company	210,000,000.00	2018-6-1	210 days	210,000,000.00	210,000,000.00		4,305,000.00		210,000,000.00	
CP issued by the Group to Henan Company	50,000,000.00	2018-6-1	210 days	50,000,000.00	50,000,000.00		1,025,000.00		50,000,000.00	
CP issued by the Group to Henan Company	25,000,000.00	2018-5-4	210 days	25,000,000.00	25,000,000.00		512,500.00		25,000,000.00	
CP issued by the Group to Henan Company	90,000,000.00	2018-5-4	210 days	90,000,000.00	90,000,000.00		1,845,000.00		90,000,000.00	
CP issued by the Group to Henan Company	220,000,000.00	2018-6-1	210 days	220,000,000.00	220,000,000.00		4,510,000.00		220,000,000.00	
CP issued by the Group to Henan Company	200,000,000.00	2018-6-1	210 days	200,000,000.00	200,000,000.00		4,100,000.00		200,000,000.00	
CP issued by the Group to Henan Company	785,000,000.00	2018-5-4	210 days	785,000,000.00	785,000,000.00		16,092,500.00		785,000,000.00	
CP issued by the Group to Henan Company	140,000,000.00	2018-5-4	210 days	140,000,000.00	50,000,000.00		1,025,000.00		50,000,000.00	
19 Jilin Investment Fund	87,490,000.00	2019-8-21	159 days	87,490,000.00		87,490,000.00	2,624,700.00			87,490,000.00
19 Xinjiang Energy	900,000,000.00	2019-10-17	270 days	900,000,000.00		900,000,000.00	18,450,000.00			900,000,000.00
18 SEP PPN001	900,000,000.00	2018-4-20	365 days	900,000,000.00	900,000,000.00		10,800,000.00		900,000,000.00	
18 SEP PPN002	1,700,000,000.00	2018-5-29	365 days	1,700,000,000.00	1,700,000,000.00		35,770,600.00		1,700,000,000.00	
18 SEP SCP006	1,800,000,000.00	2018-10-11	180 days	1,800,000,000.00	1,800,000,000.00		14,661,986.30		1,800,000,000.00	
18 SEP SCP007	1,100,000,000.00	2018-10-17	148 days	1,100,000,000.00	1,100,000,000.00		5,643,904.11		1,100,000,000.00	
18 SEP SCP008	2,800,000,000.00	2018-11-16	177 days	2,800,000,000.00	2,800,000,000.00		27,625,454.79		2,800,000,000.00	
18 SEP SCP009	1,100,000,000.00	2018-11-26	150 days	1,100,000,000.00	1,100,000,000.00		8,330,498.63		1,100,000,000.00	
18 SEP SCP010	1,400,000,000.00	2018-12-7	149 days	1,400,000,000.00	1,400,000,000.00		14,100,012.33		1,400,000,000.00	
19 SEP SCP001	2,300,000,000.00	2019-1-14	176 days	2,300,000,000.00		2,300,000,000.00	34,934,794.52		2,300,000,000.00	
19 SEP SCP002	1,200,000,000.00	2019-3-13	176 days	1,200,000,000.00		1,200,000,000.00	15,811,147.54		1,200,000,000.00	
19 SEP SCP003	900,000,000.00	2019-4-19	90 days	900,000,000.00		900,000,000.00	5,400,000.00		900,000,000.00	
19 SEP SCP004	1,100,000,000.00	2019-4-22	178 days	1,100,000,000.00		1,100,000,000.00	14,444,262.30		1,100,000,000.00	
19 SEP SCP005	1,400,000,000.00	2019-5-5	171 days	1,400,000,000.00		1,400,000,000.00	17,660,655.74		1,400,000,000.00	
19 SEP SCP006	1,700,000,000.00	2019-5-24	178 days	1,700,000,000.00		1,700,000,000.00	10,870,245.90		1,700,000,000.00	
19 SEP SCP007	1,800,000,000.00	2019-6-3	178 days	1,800,000,000.00		1,800,000,000.00	12,054,098.36		1,800,000,000.00	
19 SEP SCP008	1,600,000,000.00	2019-6-10	268 days	1,600,000,000.00		1,600,000,000.00	26,800,200.00			1,600,000,000.00
19 SEP SCP009	900,000,000.00	2019-7-12	180 days	900,000,000.00		900,000,000.00	5,241,393.44			900,000,000.00
19 SEP SCP010	1,400,000,000.00	2019-7-24	170 days	1,400,000,000.00		1,400,000,000.00	8,249,672.13			1,400,000,000.00
19 SEP SCP011	1,700,000,000.00	2019-8-20	100 days	1,700,000,000.00		1,700,000,000.00	21,533,500.00			1,700,000,000.00
19 SEP SCP012	2,400,000,000.00	2019-8-26	177 days	2,400,000,000.00		2,400,000,000.00	15,344,262.30			2,400,000,000.00
19 SEP SCP013	1,200,000,000.00	2019-9-3	170 days	1,200,000,000.00		1,200,000,000.00	10,000,000.00			1,200,000,000.00
19 SEP SCP014	1,000,000,000.00	2019-10-8	156 days	1,000,000,000.00		1,000,000,000.00	5,750,100.00			1,000,000,000.00
19 SEP SCP015	1,000,000,000.00	2019-10-15	176 days	1,000,000,000.00		1,000,000,000.00	6,000,000.00			1,000,000,000.00
19 SEP SCP016	2,700,000,000.00	2019-10-21	177 days	2,700,000,000.00		2,700,000,000.00	15,727,500.00			2,700,000,000.00
19 SEP SCP017	2,500,000,000.00	2019-12-2	86 days	2,500,000,000.00		2,500,000,000.00	3,541,700.00			2,500,000,000.00
Total				101,676,490,000.00	38,819,414,926.18	47,441,516,591.00	1,048,146,899.86	48,900,000.00	47,219,414,926.18	39,041,516,591.00

Changes in partial short-term bonds issued under commission:

Bond name	Face value	Date of issue	Date of maturity	Issuing amount	Balance as at January 1, 2019	Amount issued in 2019	Interest accrued at face value	Premium and discount amortized	Amount repaid in 2019	Other changes	Balance as at December 31, 2019
18SCP010 (RMB 2.4 billion)	2,400,000,000.00	2018-4-20	2019-1-11	2,400,000,000.00	2,350,000,000.00		100,815,000.00		2,350,000,000.00		
18 SCP011 (RMB 2 billion)	2,000,000,000.00	2018-5-4	2019-1-25	2,000,000,000.00	1,300,000,000.00		56,550,000.00		1,300,000,000.00		
18 SCP014 (RMB 3 billion)	3,000,000,000.00	2018-6-5	2019-2-20	3,000,000,000.00	2,300,000,000.00		107,180,000.00		2,300,000,000.00		
18 SCP017 (RMB 3.5 billion)	3,500,000,000.00	2018-7-2	2019-1-10	3,500,000,000.00	3,160,000,000.00		127,980,000.00		3,160,000,000.00		
18 SCP019 (RMB 1.8 billion)	1,800,000,000.00	2018-7-18	2019-4-14	1,800,000,000.00	1,700,000,000.00		69,700,000.00		1,700,000,000.00		
18 SCP020 (RMB 1.8 billion)	1,800,000,000.00	2018-7-19	2019-4-12	1,800,000,000.00	1,400,000,000.00		56,980,000.00		1,400,000,000.00		
18 SCP025 (RMB 3 billion)	3,000,000,000.00	2018-9-4	2019-3-9	3,000,000,000.00	2,159,414,926.18		75,579,522.42		2,159,414,926.18		
19 SCP001 (RMB 2.3 billion)	4,530,000,000.00	2019-1-7	2019-6-14	4,530,000,000.00		4,530,000,000.00	131,370,000.00		4,530,000,000.00		
19 SCP002 (RMB 2.4 billion)	4,780,000,000.00	2019-1-9	2019-5-10	4,780,000,000.00		4,780,000,000.00	138,620,000.00		4,780,000,000.00		
19 SCP003 (RMB 2.4 billion)	4,750,000,000.00	2019-1-10	2019-4-26	4,750,000,000.00		4,750,000,000.00	137,750,000.00		4,750,000,000.00		
19 SCP004 (RMB 3 billion)	6,000,000,000.00	2019-1-16	2019-3-19	6,000,000,000.00		6,000,000,000.00	162,000,000.00		6,000,000,000.00		
19 SCP005 (RMB 1.3 billion)	2,600,000,000.00	2019-1-23	2019-6-20	2,600,000,000.00		2,600,000,000.00	75,400,000.00		2,600,000,000.00		
19 SCP006 (RMB 2 billion)	4,000,000,000.00	2019-2-21	2019-8-16	4,000,000,000.00		4,000,000,000.00	103,600,000.00		4,000,000,000.00		
19 SCP007 (RMB 2.6	5,200,000,000.00	2019-3-7	2019-6-19	5,200,000,000.00		5,200,000,000.00	124,800,000.00		5,200,000,000.00		

Bond name	Face value	Date of issue	Date of maturity	Issuing amount	Balance as at January 1, 2019	Amount issued in 2019	Interest accrued at face value	Premium and discount amortized	Amount repaid in 2019	Other changes	Balance as at December 31, 2019
billion)											
19 SCP008 (RMB 5 billion)	5,000,000,000.00	2019-3-8	2019-5-7	5,000,000,000.00		5,000,000,000.00	132,500,000.00		5,000,000,000.00		
19 SCP009 (RMB 2.5 billion)	5,000,000,000.00	2019-3-15	2019-9-5	5,000,000,000.00		5,000,000,000.00	129,000,000.00		5,000,000,000.00		
19 SCP010 (RMB 2 billion)	2,000,000,000.00	2019-3-18	2019-4-25	2,000,000,000.00		2,000,000,000.00	44,000,000.00		2,000,000,000.00		
19 SCP011 (RMB 1 billion)	2,000,000,000.00	2019-3-27	2019-8-23	2,000,000,000.00		2,000,000,000.00	51,600,000.00		2,000,000,000.00		
19 SCP012 (RMB 2.4 billion)	4,750,000,000.00	2019-4-10	2019-9-11	4,750,000,000.00		4,750,000,000.00	118,750,000.00		4,750,000,000.00		
19 SCP013 (RMB 2.3 billion)	4,600,000,000.00	2019-4-11	2019-9-19	4,600,000,000.00		4,600,000,000.00	115,000,000.00		4,600,000,000.00		
19 SCP014 (RMB 2.4 billion)	4,750,000,000.00	2019-4-24	2019-10-18	4,750,000,000.00		4,750,000,000.00	118,750,000.00		4,750,000,000.00		
19 SCP015 (RMB 2 billion)	2,000,000,000.00	2019-5-5	2019-5-29	2,000,000,000.00		2,000,000,000.00	56,000,000.00		2,000,000,000.00		
19 SCP016 (RMB 3 billion)	6,000,000,000.00	2019-5-7	2019-10-24	6,000,000,000.00		6,000,000,000.00	171,000,000.00		6,000,000,000.00		
19 SCP017 (RMB 1.3 billion)	1,300,000,000.00	2019-5-16	2019-7-12	1,300,000,000.00		1,300,000,000.00	31,850,000.00		1,300,000,000.00		
19 SCP018 (RMB 3 billion)	6,000,000,000.00	2019-5-22	2019-10-17	6,000,000,000.00		6,000,000,000.00	160,800,000.00		6,000,000,000.00		
19 SCP019 (RMB 2.2 billion)	2,200,000,000.00	2019-6-12	2019-11-21	2,200,000,000.00		2,200,000,000.00	60,500,000.00		2,200,000,000.00		
19 SCP020 (RMB 2.1 billion)	4,200,000,000.00	2019-6-17	2019-10-23	4,200,000,000.00		4,200,000,000.00	115,500,000.00		4,200,000,000.00		
19	1,800,000,000.00	2019-6-17	2020-3-13	1,800,000,000.00		1,800,000,000.00	55,800,000.00			1,800,000,000.00	

Bond name	Face value	Date of issue	Date of maturity	Issuing amount	Balance as at January 1, 2019	Amount issued in 2019	Interest accrued at face value	Premium and discount amortized	Amount repaid in 2019	Other changes	Balance as at December 31, 2019
SCP021 (RMB 1.8 billion)											
19 SCP022 (RMB 2 billion)	2,000,000,000.00	2019-7-15	2019-11-14	2,000,000,000.00		2,000,000,000.00	48,000,000.00		2,000,000,000.00		
19 SCP023 (RMB 2.5 billion)	2,500,000,000.00	2019-8-14	2020-1-11	2,500,000,000.00		2,500,000,000.00	58,750,000.00			2,500,000,000.00	
19 SCP024 (RMB 2.5 billion)	2,500,000,000.00	2019-8-21	2020-2-14	2,500,000,000.00		2,500,000,000.00	57,500,000.00			2,500,000,000.00	
19 SCP025 (RMB 3.1 billion)	3,100,000,000.00	2019-9-3	2020-2-20	3,100,000,000.00		3,100,000,000.00	70,990,000.00			3,100,000,000.00	
19 SCP026 (RMB 2.5 billion)	2,500,000,000.00	2019-9-9	2020-3-6	2,500,000,000.00		2,500,000,000.00	55,000,000.00			2,500,000,000.00	
19 SCP027 (RMB 2.3 billion)	2,300,000,000.00	2019-9-17	2020-3-11	2,300,000,000.00		2,300,000,000.00	50,600,000.00			300,000,000.00	2,000,000,000.00
19 SCP028 (RMB 3.5 billion)	3,500,000,000.00	2019-9-26	2020-2-21	3,500,000,000.00		3,500,000,000.00	77,000,000.00			1,344,516,591.00	2,155,483,409.00
19 SCP029 (RMB 3 billion)	3,000,000,000.00	2019-10-14	2020-7-10	3,000,000,000.00		3,000,000,000.00	67,500,000.00				3,000,000,000.00
19 SCP030 (RMB 2.4 billion)	2,400,000,000.00	2019-10-16	2020-4-10	2,400,000,000.00		2,400,000,000.00	51,600,000.00				2,400,000,000.00
19 SCP031 (RMB 2.1 billion)	2,100,000,000.00	2019-10-21	2020-4-17	2,100,000,000.00		2,100,000,000.00	46,200,000.00			196,000,000.00	1,904,000,000.00
19 SCP032 (RMB 2.2 billion)	2,200,000,000.00	2019-11-12	2020-4-23	2,200,000,000.00		2,200,000,000.00	45,100,000.00			1,000,000.00	2,199,000,000.00
Total				129,060,000,000.00	14,369,414,926.18	111,560,000,000.00	3,457,614,522.42		98,029,414,926.18	14,241,516,591.00	13,658,483,409.00

8.48 Long-term borrowings

Item	Balance as at December 31, 2019	Balance as at January 1, 2019	Interest interval as at December 31, 2019
Pledged borrowings	116,200,312,237.95	138,437,374,264.57	0.75%-6.57%
Mortgage borrowings	20,513,097,401.65	18,862,320,052.50	4.18%-5.39%
Guaranteed borrowings	17,831,420,048.59	12,050,410,172.15	3.03%-5.31%
Credit borrowings	164,928,126,062.01	163,536,019,167.50	2.66%-6.57%
Total	319,472,955,750.20	332,886,123,656.72	

8.49 Bonds payable

8.49.1 Bonds payable

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Medium-term notes	60,754,995,000.00	38,620,351,677.20
Enterprise bonds	11,808,384,783.11	7,000,000,000.00
Corporate bonds	46,939,647,812.11	46,517,529,787.13
Total	119,503,027,595.22	92,137,881,464.33

8.49.2 Changes in bonds payable: (excluding preferred stocks, perpetual bonds and other financial instruments divided into financial liabilities)

Bond name	Face value	Date of issue	Bond maturity	Issuing amount	Balance as at January 1, 2019	Amount issued in 2019	Interest accrued at face value	Premium and discount amortized	Amount repaid in 2019	Balance as at December 31, 2019
13 Enterprise Bond (RMB 2 billion)	2,000,000,000.00	2013-7-22	10 years	2,000,000,000.00	2,000,000,000.00		104,000,000.00			2,000,000,000.00
14 Enterprise Bond (RMB 2 billion)	2,000,000,000.00	2014-4-23	15 years	2,000,000,000.00	2,000,000,000.00		122,000,000.00			2,000,000,000.00
14 Enterprise Bond 002 (RMB 3 billion)	3,000,000,000.00	2014-9-17	15 years	3,000,000,000.00	3,000,000,000.00		172,200,000.00			3,000,000,000.00
15 MTN002 RMB 4 billion (15 SPIC MTN002)	4,000,000,000.00	2015-5-20	7 years	4,000,000,000.00	4,000,000,000.00		172,800,000.00			4,000,000,000.00
15 MTN004 RMB 5 billion MTN004	5,000,000,000.00	2015-9-7	7 years	5,000,000,000.00	5,000,000,000.00		219,500,000.00			5,000,000,000.00
16 Corporate Bond 004	1,500,000,000.00	2016-8-11	3 + 2 years	1,500,000,000.00		1,500,000,000.00				1,500,000,000.00
17 Corporate Bond 001 (RMB 3.5 billion)	3,500,000,000.00	2017-5-17	3 years	3,500,000,000.00	830,000,000.00				830,000,000.00	
17 MTN001 (RMB 2.5 billion)	2,500,000,000.00	2017-11-15	3 years	2,500,000,000.00	2,500,000,000.00		128,750,000.00		1,720,000,000.00	
17 Corporate Bond 002 (RMB 2.5 billion)	2,500,000,000.00	2017-5-22	3 years	2,500,000,000.00	500,000,000.00				500,000,000.00	
17 Corporate Bond 003 (RMB 2 billion)	2,000,000,000.00	2017-7-10	3 years	2,000,000,000.00	2,000,000,000.00		90,000,000.00		1,140,000,000.00	
17 Corporate Bond 004 (RMB 2 billion)	2,000,000,000.00	2017-7-12	4 years	2,000,000,000.00	500,000,000.00				500,000,000.00	
17 Corporate Bond 005 (RMB 2 billion)	2,000,000,000.00	2017-7-24	3 years	2,000,000,000.00	700,000,000.00				700,000,000.00	
17 Corporate Bond 006 (RMB 1.5 billion)	1,500,000,000.00	2017-8-9	3 years	1,500,000,000.00	430,000,000.00				430,000,000.00	
17 Corporate Bond 007 (RMB 1.5 billion)	1,500,000,000.00	2017-8-11	3 years	1,500,000,000.00	560,000,000.00				560,000,000.00	
18 Corporate Bond 001 (RMB 3 billion)	3,000,000,000.00	2018-4-23	3 years	3,000,000,000.00	3,000,000,000.00		135,000,000.00			3,000,000,000.00
18 Corporate Bond 002 (RMB 3 billion)	3,000,000,000.00	2018-5-18	3 years	3,000,000,000.00	3,000,000,000.00		145,200,000.00			3,000,000,000.00
18 Corporate Bond 003 (RMB 3 billion)	3,000,000,000.00	2018-5-21	3 years	3,000,000,000.00	3,000,000,000.00		144,900,000.00			3,000,000,000.00
18 Corporate Bond 004 (RMB 4 billion)	4,000,000,000.00	2018-8-22	3 years	4,000,000,000.00	4,000,000,000.00		175,200,000.00			4,000,000,000.00
18 Corporate Bond 005 (RMB 3.5 billion)	3,500,000,000.00	2018-8-30	3 years	3,500,000,000.00	3,500,000,000.00		151,900,000.00			3,500,000,000.00
18 Corporate Bond 006 (RMB 3.5 billion)	3,500,000,000.00	2018-9-7	3 years	3,500,000,000.00	3,500,000,000.00		150,150,000.00			3,500,000,000.00
18 Corporate Bond 007 (RMB 3.5 billion)	3,500,000,000.00	2018-9-19	3 years	3,500,000,000.00	3,500,000,000.00		150,500,000.00			3,500,000,000.00
18 Corporate Bond 008 (RMB 3.8 billion)	3,800,000,000.00	2018-10-22	5 years	3,800,000,000.00	3,800,000,000.00		155,800,000.00			3,800,000,000.00
18 Corporate Bond 009 (RMB 3.7 billion)	3,700,000,000.00	2018-10-22	5 years	3,700,000,000.00	3,700,000,000.00		149,110,000.00			3,700,000,000.00
18 Corporate Bond 010 (RMB 4 billion)	4,000,000,000.00	2018-11-12	5 years	4,000,000,000.00	4,000,000,000.00		158,800,000.00			4,000,000,000.00
19 MTN001 (RMB	2,300,000,000.00	2019-2-18	3 years	2,300,000,000.00		2,300,000,000.00	77,970,000.00			2,300,000,000.00

Bond name	Face value	Date of issue	Bond maturity	Issuing amount	Balance as at January 1, 2019	Amount issued in 2019	Interest accrued at face value	Premium and discount amortized	Amount repaid in 2019	Balance as at December 31, 2019
2.3 billion)										
19 MTN002 (RMB 1.7 billion)	1,700,000,000.00	2019-3-13	3 years	1,700,000,000.00		1,700,000,000.00	62,050,000.00			1,700,000,000.00
19 MTN003 (RMB 2.8 billion)	2,800,000,000.00	2019-4-11	3 years	2,800,000,000.00		2,800,000,000.00	107,800,000.00			2,800,000,000.00
19 MTN004 (RMB 2.9 billion)	2,900,000,000.00	2019-4-16	3 years	2,900,000,000.00		2,900,000,000.00	113,100,000.00			2,900,000,000.00
19 MTN005 (RMB 1.1 billion)	1,100,000,000.00	2019-4-18	3 years	1,100,000,000.00		1,100,000,000.00	43,340,000.00			1,100,000,000.00
19 MTN006 (RMB 2.3 billion)	2,300,000,000.00	2019-4-25	3 years	2,300,000,000.00		2,300,000,000.00	92,000,000.00			2,300,000,000.00
19 MTN007 (RMB 2 billion)	2,000,000,000.00	2019-5-8	3 years	2,000,000,000.00		2,000,000,000.00	77,400,000.00			2,000,000,000.00
19 MTN008 (RMB 1.8 billion)	1,800,000,000.00	2019-5-16	3 years	1,800,000,000.00		1,800,000,000.00	67,140,000.00			1,800,000,000.00
19 MTN009 (RMB 2 billion)	2,000,000,000.00	2019-5-23	3 years	2,000,000,000.00		2,000,000,000.00	74,600,000.00			2,000,000,000.00
19 MTN010 (RMB 2 billion)	2,000,000,000.00	2019-6-5	3 years	2,000,000,000.00		2,000,000,000.00	75,000,000.00			2,000,000,000.00
19 MTN011 (RMB 1.8 billion)	1,800,000,000.00	2019-6-13	3 years	1,800,000,000.00		1,800,000,000.00	67,860,000.00			1,800,000,000.00
19 MTN012 (RMB 2 billion)	2,000,000,000.00	2019-7-5	3 years	2,000,000,000.00		2,000,000,000.00	76,000,000.00			2,000,000,000.00
19 MTN013 (RMB 2.1 billion)	2,100,000,000.00	2019-7-17	3 years	2,100,000,000.00		2,100,000,000.00	75,600,000.00			2,100,000,000.00
19 MTN014 (RMB 2.1 billion)	2,100,000,000.00	2019-8-7	3 years	2,100,000,000.00		2,100,000,000.00	78,750,000.00			2,100,000,000.00
19 MTN015 (RMB 2.4 billion)	2,400,000,000.00	2019-8-22	3 years	2,400,000,000.00		2,400,000,000.00	88,080,000.00			2,400,000,000.00
19 MTN016 (RMB 1.6 billion)	1,600,000,000.00	2019-8-30	3 years	1,600,000,000.00		1,600,000,000.00	54,720,000.00			1,600,000,000.00
19 MTN017 (RMB 800 million)	800,000,000.00	2019-9-26	3 years	800,000,000.00		800,000,000.00	27,920,000.00			800,000,000.00
19 MTN018 (RMB 2.4 billion)	2,400,000,000.00	2019-10-22	3 years	2,400,000,000.00		2,400,000,000.00	85,200,000.00			2,400,000,000.00
19 MTN019 (RMB 800 million)	800,000,000.00	2019-11-20	3 years	800,000,000.00		800,000,000.00	28,400,000.00			800,000,000.00
Industrial Bank Green PPN	2,000,000,000.00	2017-5-22	Within 1 year	2,000,000,000.00	1,000,000,000.00				1,000,000,000.00	
Industrial Bank Co., Ltd.	2,000,000,000.00	2019-6-5	2 years			2,000,000,000.00			1,000,000,000.00	1,000,000,000.00
Huaxia Bank Private Equity Corporate Bond	2,000,000,000.00	2017-8-9	3 years	2,000,000,000.00	2,000,000,000.00		95,200,698.54		2,000,000,000.00	
Huatai United Private Equity Bond	1,000,000,000.00	2018-4-19	3 years	1,000,000,000.00	1,000,000,000.00		35,526,729.52			1,000,000,000.00
Guotai Junan Private Equity Bond	1,000,000,000.00	2019-1-25	3 years			1,000,000,000.00				1,000,000,000.00
Guotai Junan Private Equity Corporate Bond	1,000,000,000.00	2019-1-25	2 years			1,000,000,000.00				1,000,000,000.00
Orient Securities Co., Ltd.	1,000,000,000.00	2019-1-25	3 years			1,000,000,000.00				1,000,000,000.00

Bond name	Face value	Date of issue	Bond maturity	Issuing amount	Balance as at January 1, 2019	Amount issued in 2019	Interest accrued at face value	Premium and discount amortized	Amount repaid in 2019	Balance as at December 31, 2019
19 RHRZ PPN001 - Agricultural Development Bank of China	1,000,000,000.00	2019-2-22	3 years			1,000,000,000.00				1,000,000,000.00
19 KF D1	240,000,000.00	2019-11-18	1 year			240,000,000.00				240,000,000.00
19 KF 04	360,000,000.00	2019-10-24	3 years			360,000,000.00				360,000,000.00
19 KF 02	560,000,000.00	2019-4-30	2 + 1 years			560,000,000.00				560,000,000.00
19 KF 01	682,750,000.00	2019-3-20	3 years			682,750,000.00				682,750,000.00
17 KF 03	2,000,000,000.00	2017-10-23	5 years	2,000,000,000.00	530,000,000.00		75,647,000.00		530,000,000.00	
17 KF 02	2,000,000,000.00	2017-8-21	5 years	2,000,000,000.00	50,000,000.00		58,937,500.00		50,000,000.00	
17 KF 01	1,000,000,000.00	2017-7-25	5 years	1,000,000,000.00	1,000,000,000.00		61,400,000.00		1,000,000,000.00	
18 RHRZ GN001	1,000,000,000.00	2018-1-17	3 years	1,000,000,000.00	1,000,000,000.00		55,434,657.62		1,000,000,000.00	
18 RHZL PPN002	1,000,000,000.00	2018-10-29	3 years	1,000,000,000.00	1,000,000,000.00		10,077,210.29		1,000,000,000.00	
18 RHRZ PPN003	1,000,000,000.00	2018-11-21	3 years	1,000,000,000.00	1,000,000,000.00		5,135,520.51		1,000,000,000.00	
18 Corporate Bond 001	2,000,000,000.00	2018-11-12	3 years	2,000,000,000.00	500,000,000.00		4,375,000.00		500,000,000.00	
15 SNPTC MTN001	1,000,000,000.00	2015-5-12	5 years	1,000,000,000.00	1,000,000,000.00		46,228,243.14		1,000,000,000.00	
US$500m-5-year Bond Issuance	3,431,600,000.00	2018-10-30	5 years	3,431,600,000.00	3,415,365,708.54		27,691,405.67		-72,734,291.46	3,488,100,000.00
US$300m-3-year Bond Issuance	2,058,960,000.00	2018-10-30	3 years	2,058,960,000.00	2,049,451,949.28		15,444,559.71		-43,408,050.72	2,092,860,000.00
RMB 900 million 5-year Bonds	5,880,780,000.00	2016-12-6	5 years	5,880,780,000.00	6,192,798,373.32		200,807,914.59		-85,781,626.68	6,278,580,000.00
RMB 300 million 10-year Bonds	1,960,260,000.00	2016-12-6	10 years	1,960,260,000.00	2,064,996,799.45		82,829,852.70		-27,863,200.55	2,092,860,000.00
18 Corporate Bonds 002 privately offered by Road & Port Company	63,200,000.00	2018-8-9	5 years	63,200,000.00	63,200,000.00					63,200,000.00
18 Corporate Bonds Mengzhong 02 privately offered by Road & Port Company - Jinzhou Port	250,000,000.00	2018-8-9	5 years	250,000,000.00	250,000,000.00					250,000,000.00
18 Corporate Bonds Mengzhong 02 privately offered by Road & Port Company - Jinzhou-Chifeng Railway	231,800,000.00	2018-8-9	5 years	231,800,000.00	231,800,000.00		14,035,011.10			231,800,000.00
18 Corporate Bonds Mengzhong 01 privately offered by Road & Port Company - Jinzhou-Chifeng Railway	255,000,000.00	2018-6-1	5 years	255,000,000.00	255,000,000.00		9,668,750.02		200,000,000.00	55,000,000.00
17 Corporate Bonds Mengzhong 01 privately offered by Road & Port Company - Jinzhou Port	400,000,000.00	2017-11-21	5 years	400,000,000.00	400,000,000.00		23,100,000.00			400,000,000.00
17 Corporate Bonds Mengzhong 01 privately offered by	300,000,000.00	2017-11-21	5 years	300,000,000.00	300,000,000.00		18,900,000.00			300,000,000.00

Bond name	Face value	Date of issue	Bond maturity	Issuing amount	Balance as at January 1, 2019	Amount issued in 2019	Interest accrued at face value	Premium and discount amortized	Amount repaid in 2019	Balance as at December 31, 2019
Road & Port Company - Jinzhou-Chifeng Railway										
China Power Clean Energy Development Company Limited Headquarters - Panda Bonds	800,000,000.00	2017-6-1	2 years	800,000,000.00	799,200,000.00		43,956,000.00		799,200,000.00	
China Power International Development Limited - Panda Bonds	2,000,000,000.00	2018-10-15	3 years	2,000,000,000.00	2,000,000,000.00		17,964,383.56			2,000,000,000.00
China Power International Development Limited - Panda Bonds	2,000,000,000.00	2019-9-5	3 years			2,000,000,000.00				2,000,000,000.00
China Power International New Energy Holding Company Limited: Hong Kong Headquarters - Panda Bonds	802,778,466.84	2019-9-3	2 years			802,778,466.84				802,778,466.84
09 Wuling Bonds	992,000,000.00	2009-4-30	11 years	992,000,000.00	997,529,787.13		46,000,000.00		997,529,787.13	
16 Jinyuan PPN001	800,000,000.00	2016-2-19	3 years	800,000,000.00						
15 Jinyuan PPN001	600,000,000.00	2015-11-20	3 years	600,000,000.00	600,000,000.00				600,000,000.00	
USD 500 million Bonds of Finance Company	3,246,800,000.00	2015-8-11	5 years	3,246,800,000.00	3,418,538,846.61		126,443,625.00		3,413,439,718.23	5,099,128.38
19 SEP PPN002	800,000,000.00	2019-6-3	2 years			800,000,000.00	15,480,000.00			800,000,000.00
19 SEP PPN001	1,400,000,000.00	2019-5-13	2 years			1,400,000,000.00	28,000,200.00			1,400,000,000.00
Total				161,213,150,000.00	92,137,881,464.33	51,245,528,466.84	5,017,024,261.97		22,240,382,335.95	119,503,027,595.22

8.50 Preferred stocks, perpetual bonds and other financial instruments

8.50.1 Preferred stocks, perpetual bonds and other financial instruments issued as at December 31, 2019

Financial instruments issued	Date of issue	Accounting category	Stock rate or interest rate	Issue price	Issue number	Amount	Maturity date or renewal	Conversion conditions	Conversion situation
15 SPIC Renewable Bonds	2015-6-8	Perpetual bonds	5.7	100	30,000,000.00	3,000,000,000.00	3 + N years		
15 MTN001	2015-3-31	Perpetual bonds	5.75	100	40,000,000.00	4,000,000,000.00	5 + N years		
15 MTN003	2015-7-7	Perpetual bonds	5.1	100	25,000,000.00	2,500,000,000.00	5 + N years		
Shanghai	2015-12-25	Perpetual	5.39	100	50,000,000.00	5,000,000,000.00	7 + N		

Financial instruments issued	Date of issue	Accounting category	Stock rate or interest rate	Issue price	Issue number	Amount	Maturity date or renewal	Conversion conditions	Conversion situation
Trust - Guizhou Jinyuan Perpetual Bonds Plan		bonds					years		
16 Renewable Corporate Bonds 001	2016-6-29	Perpetual bonds	3.65	100	40,000,000.00	4,000,000,000.00	5 + N years		
Lujiazui Trust SPIC Zhongwei Thermal Power Perpetual Bonds	2016-12-14	Perpetual bonds	5.38			1,000,000,000.00	5 + N years		
Lujiazui Trust SPIC Zhongwei New Energy Perpetual Bonds	2016-12-14	Perpetual bonds	5.38			4,000,000,000.00	5 + N years		
CITIC Trust Shanxi Aluminum Perpetual Bonds	2016-12-29	Perpetual bonds	5.145			500,000,000.00	8 + N years		
Shanghai International Trust Shanxi Aluminum Perpetual Bonds	2016-12-30	Perpetual bonds	5.145			301,000,000.00	8 + N years		
17 Renewable	2017-8-25	Perpetual	5.1	100	15,000,000.00	1,500,000,000.00	5 + N		

Financial instruments issued	Date of issue	Accounting category	Stock rate or interest rate	Issue price	Issue number	Amount	Maturity date or renewal	Conversion conditions	Conversion situation
Corporate Bonds 001		bonds					years		
17 Renewable Corporate Bonds 002	2017-10-31	Perpetual bonds	5.14	100	15,000,000.00	1,500,000,000.00	5 + N years		
17 Renewable Corporate Bonds 003	2017-10-31	Perpetual bonds	5.13	100	15,000,000.00	1,500,000,000.00	5 + N years		
Hwabao Trust - Huanghe Perpetual Bonds	2017-11-20	Perpetual bonds	Benchmark interest rate + 19.1579%			500,000,000.00	3 + N years		
Agricultural Bank Financial - Huanghe Perpetual Bonds	2017-12-22	Perpetual bonds	Benchmark interest rate + 22.1053%			200,000,000.00	3 + N years		
Share 3020 of China Power Development with Non-voting Convertible to Preferred Stocks	2017-12-27	Preferred stocks			3,020 shares	3,597,775,558.20			
18 Renewable Corporate Bonds 001	2018-6-4	Perpetual bonds	5.5	100	25,000,000.00	2,500,000,000.00	5 + N years		
18 Renewable Corporate Bonds 002	2018-6-8	Perpetual bonds	5.57	100	15,000,000.00	1,500,000,000.00	5 + N years		
Minmetals	2018-9-29	Perpetual	6.8			400,000,000.00	5 + N		

Financial instruments issued	Date of issue	Accounting category	Stock rate or interest rate	Issue price	Issue number	Amount	Maturity date or renewal	Conversion conditions	Conversion situation
Trust Sichuan Perpetual Bonds 001		bonds					years		
Minmetals Trust Sichuan Perpetual Bonds 002	2018-10-19	Perpetual bonds	6.8			250,000,000.00	5 + N years		
Minmetals Trust Sichuan Perpetual Bonds 003	2018-11-7	Perpetual bonds	6.8			150,000,000.00	5 + N years		
18 Perpetual Corporate Medium-Term Bonds 001-01	2018-11-15	Perpetual bonds	4.57	100	22,000,000.00	2,200,000,000.00	3 + N years		
18 Perpetual Corporate Medium-Term Bonds 001-02	2018-11-15	Perpetual bonds	4.74	100	8,000,000.00	800,000,000.00	5 + N years		
18 SPIC Ronghe Leasing Perpetual Bonds	2018-11-1	Perpetual bonds	5.96	100	10,000,000.00	1,000,000,000.00	2 + N years		
18 Hong Kong Treasury Perpetual Bonds	2018-11-22	Perpetual bonds	5.8			3,431,600,000.00	3.5 + N years		
18 Perpetual Corporate Medium-Term Bonds 002-01	2018-12-6	Perpetual bonds	4.49	100	20,000,000.00	2,000,000,000.00	3 + N years		

Financial instruments issued	Date of issue	Accounting category	Stock rate or interest rate	Issue price	Issue number	Amount	Maturity date or renewal	Conversion conditions	Conversion situation
18 Perpetual Corporate Medium-Term Bonds 002-02	2018-12-6	Perpetual bonds	4.65	100	10,000,000.00	1,000,000,000.00	5 + N years		
18 Jinyuan Zhongshui Preferred Stocks	2018-12-31	Preferred stocks		100	5,000,000.00	500,000,000.00			
19 Perpetual Bonds 001 (19 SPIC Y1)	2019-1-16	Perpetual bonds	4.2	100	11,000,000.00	1,100,000,000.00	3 + N years		
19 Perpetual Bonds 001 (19 SPIC Y2)	2019-1-16	Perpetual bonds	4.47	100	9,000,000.00	900,000,000.00	5 + N years		
19 Perpetual Bonds 002 (19 SPIC Y3)	2019-4-10	Perpetual bonds	4.38	100	14,000,000.00	1,400,000,000.00	3 + N years		
19 Perpetual Bonds 002 (19 SPIC Y4)	2019-4-10	Perpetual bonds	4.79	100	6,000,000.00	600,000,000.00	5 + N years		
19 Perpetual Bonds 003-01	2019-4-23	Perpetual bonds	4.47	100	15,000,000.00	1,500,000,000.00	3 + N years		
19 Perpetual Bonds 003-02	2019-4-23	Perpetual bonds	4.84	100	5,000,000.00	500,000,000.00	5 + N years		
19 Perpetual Bonds 004-01	2019-5-9	Perpetual bonds	4.42	100	15,000,000.00	1,500,000,000.00	3 + N years		
19 Perpetual Bonds 004-02	2019-5-9	Perpetual bonds	4.77	100	5,000,000.00	500,000,000.00	5 + N years		
19 Perpetual Bonds 005-01	2019-5-16	Perpetual bonds	4.31	100	14,000,000.00	1,400,000,000.00	3 + N years		
19 Perpetual Bonds 005-02	2019-5-16	Perpetual bonds	4.7	100	6,000,000.00	600,000,000.00	5 + N years		
19 Perpetual	2019-5-27	Perpetual	4.25	100	13,000,000.00	1,300,000,000.00	3 + N		

Financial instruments issued	Date of issue	Accounting category	Stock rate or interest rate	Issue price	Issue number	Amount	Maturity date or renewal	Conversion conditions	Conversion situation
Bonds 006-01		bonds					years		
19 Perpetual Bonds 006-02	2019-5-27	Perpetual bonds	4.6	100	7,000,000.00	700,000,000.00	5 + N years		
19 Perpetual Bonds 007-01	2019-7-12	Perpetual bonds	3.98	100	13,000,000.00	1,300,000,000.00	3 + N years		
19 Perpetual Bonds 007-02	2019-7-12	Perpetual bonds	4.28	100	7,000,000.00	700,000,000.00	5 + N years		
19 Perpetual Bonds 008-01	2019-7-22	Perpetual bonds	3.96	100	13,000,000.00	1,300,000,000.00	3 + N years		
19 Perpetual Bonds 008-02	2019-7-22	Perpetual bonds	4.25	100	7,000,000.00	700,000,000.00	5 + N years		
19 Perpetual Bonds 009-01	2019-7-30	Perpetual bonds	3.92	100	11,000,000.00	1,100,000,000.00	3 + N years		
19 Perpetual Bonds 009-02	2019-7-30	Perpetual bonds	4.24	100	9,000,000.00	900,000,000.00	5 + N years		
19 Perpetual Bonds 010-01	2019-8-16	Perpetual bonds	3.75	100	6,000,000.00	600,000,000.00	3 + N years		
19 Perpetual Bonds 010-02	2019-8-16	Perpetual bonds	4.07	100	14,000,000.00	1,400,000,000.00	5 + N years		
19 Perpetual Bonds 011-01	2019-8-23	Perpetual bonds	3.79	100	10,000,000.00	1,000,000,000.00	3 + N years		
19 Perpetual Bonds 011-02	2019-8-23	Perpetual bonds	4.1	100	10,000,000.00	1,000,000,000.00	5 + N years		
19 Perpetual Bonds 012-01	2019-9-2	Perpetual bonds	3.82	100	10,000,000.00	1,000,000,000.00	3 + N years		
19 Perpetual Bonds 012-02	2019-9-2	Perpetual bonds	4.15	100	10,000,000.00	1,000,000,000.00	5 + N years		
19 Perpetual Bonds 013-01	2019-10-22	Perpetual bonds	3.8	100	5,000,000.00	500,000,000.00	3 + N years		
19 Perpetual Bonds 013-02	2019-10-22	Perpetual bonds	4.2	100	5,000,000.00	500,000,000.00	5 + N years		
19 SEP MTN 001	2019-11-4	Perpetual bonds	4.15	100	16,000,000.00	1,600,000,000.00	3 + N years		

Financial instruments issued	Date of issue	Accounting category	Stock rate or interest rate	Issue price	Issue number	Amount	Maturity date or renewal	Conversion conditions	Conversion situation
19 SEP MTN 002	2019-11-14	Perpetual bonds	3.99	100	16,000,000.00	1,600,000,000.00	3 + N years		
Hwabao Trust - Huanghe Perpetual Bonds	2019-12-30	Perpetual bonds	Benchmark interest rate over the same period issued by the People's Bank of China			1,500,000,000.00	3 + N years		
19 SPIC International Energy Preferred Stocks	2019-12-24	Preferred stocks				1,026,000,000.00			
Guizhou Zhongshui Energy Preferred Stocks	2019-5-28	Preferred stocks	6.50	100	4,700,000.00	470,000,000.00			
Total						80,026,375,558.20			

8.50.2 Itemized main provisions on financial instruments

(1) 15 SPIC Renewable Bonds: This bond takes one repricing cycle every three interest-bearing years. At the end of each repricing cycle, the issuer has the right to choose to extend the duration of the bond by one repricing cycle (that is, to continue for 3 years), or to redeem the bond in full. The bonds are in the form of floating interest rates, and simple interest is calculated annually. During the first four repricing cycles (the first interest-bearing year to the twelfth interest-bearing year) of the bond, the coupon rate is determined by the benchmark interest rate plus the basic interest margin. If the issuer chooses to extend the duration of the bond, the coupon rate applicable to each repricing cycle is adjusted to the current benchmark interest rate plus the basic interest rate plus 300 basis points since the fifth repricing cycle (1 basis point equivalent to 0.01%, the same below). The basic interest spread of this bond and the coupon rate of the initial issuance will be determined based on the results of bookkeeping and filing, and reported to the National Development and Reform Commission and the People's Bank of China for record before the announcement. In terms of this bond, interest will be paid once a year. The right of the issuer to make a deferred payment of interest is attached. Unless mandatory interest payment event, on each interest payment date of the current bonds, the issuer can choose to defer to pay the current interest and all the interest and fructus that have been deferred in accordance with the present article to the next interest payment date and does not subject to any restrictions on the number of deferred interest payments. Within 12 months before the interest payment date, if the following events occur, the issuer shall not defer the current interest and all interest and its dividends that have been deferred in accordance with this article: dividends to shareholders, or reduction of registered capital.

(2) 15 MTN001: The date of interest payment is April 1 of each year during the duration, with April 1, 2020 as the first coupon rate reset date, and the coupon rate reset date is the same date as the first coupon rate reset date every 5 years. Deferred interest payment terms: Unless mandatory interest payment event, on each interest payment date of the current MTN, the issuer can choose to defer to pay the current interest and all the interest and fructus that have been deferred in accordance with the present article to the next interest payment date and does not subject to any restrictions on the number of deferred interest payments; the foregoing deferred interest does not belong to the issuer's failure to pay the agreed interest in full. The deferred interest will be calculated at the coupon rate of the current period during the period deferred on an accumulation basis. Interest payment method: the issuer shall, five working days before each interest payment date of the current MTN, publish the Interest Payment Announcement on the information disclosure media designated by the competent department in accordance with the relevant regulations, and complete the interest payment on the interest payment date at the coupon rate by taking Shanghai Clearing House as the agent. If the issuer decides to defer the interest payment, the issuer and the relevant intermediary agency should disclose the Prospectus for 15 MTN001 of China Power Investment Corporation - Announcement on Deferred Payment for the 13th Installment of Interest five working days before the interest payment date. Mandatory interest payment event: In case of either of the following events 12 months before the interest payment date, the issuer shall not defer the current interest and all interest and its fructus that have been deferred in accordance with this article: (1) issuing dividends to shareholders; or (2) reducing registered capital. Redemption method: if the issuer decides to exercise the redemption right within the time specified in the aforementioned redemption clause, the issuer shall publish the Advance Redemption Announcement on the information disclosure media designated by the competent department in accordance with the relevant regulations one month before the redemption date, with Shanghai Clearing House completing the redemption work as the agent.

(3) 15 MTN003: On the fifth and subsequent interest payment days of the current MTN, the issuer has the right to redeem the current MTN at face value plus interest payable (including all deferred interest). Fixed interest rate will be used for interest accrual in terms of the current MTN. The coupon rate of the first 5 interest-bearing years will be determined through bookkeeping and filing, as well as centralized placement, and will remain unchanged during the first 5 interest-bearing years. Since the 6th interest-bearing year, the coupon rate will be reset every 5 years. The coupon rate of the first 5 interest-bearing years is the initial benchmark interest rate plus the initial spread. Specifically, the initial benchmark interest rate is the arithmetic average of treasury yields with a payable period of 5 years (rounded to 0.01%) in the yield curve for interbank fixed-rate treasury bonds of China bonds published in the China Bond Information Network (www.chinabond.com.cn) (or other websites approved by the Central Depository and Clearing Co., Ltd.) 5 working days before the book-filing date. If the issuer does not exercise the right of redemption, then from the 6th interest-bearing year, the coupon rate is adjusted to the current benchmark interest rate plus the initial spread plus 300 basis points, and from the 6th interest-bearing year to the 10th it will remain unchanged. The current benchmark interest rate is the arithmetic average of treasury yields with a payable period of 5 years (rounded to 0.01%) in the yield curve for interbank fixed-rate treasury bonds of China bonds published in the China Bond Information Network (www.chinabond.com.cn) (or other websites approved by the Central Depository and Clearing Co., Ltd.) 5 working days before the coupon rate reset date. After that, the coupon rate is reset every 5 years equivalent to the current benchmark interest rate plus the initial spread plus 300 basis points. The calculation formula is: current coupon rate = current benchmark interest rate + initial interest spread + 300 basis points; if the current benchmark interest rate is not available on the interest rate adjustment date in the future due to changes in macro economy and policies and other factors, the coupon rate will be determined by using the benchmark interest rate of the previous period before the coupon rate adjustment date plus the initial interest spread plus 300 basis points. Deferred interest payment terms: Unless mandatory interest payment event, on each interest payment date of the current MTN, the issuer can choose to defer to pay the current interest and all the interest and fructus that have been deferred in accordance with the present article to the next interest payment date and does not subject to any restrictions on the number of deferred interest payments; the foregoing deferred interest does not belong to the issuer's failure to pay the agreed interest in full. The deferred interest will be calculated at the coupon rate of the current period during the period deferred on an accumulation basis. Interest payment method: the issuer shall, five working days before each interest payment date of the current MTN, publish the Interest Payment Announcement on the information disclosure media designated by the competent department in accordance with the relevant regulations, and complete the interest payment on the interest payment date at the coupon rate by taking Shanghai Clearing House as the agent. If the issuer decides to defer the interest payment, the issuer and the relevant intermediary agency should disclose the Announcement on Deferred Interest Payment five working days before the interest payment date. Mandatory interest payment event: In case of either of the following events 12 months before the interest payment date, the issuer shall not defer the current interest and all interest and its fructus that have been deferred in accordance with this article: (1) issuing dividends to shareholders; or (2) reducing registered capital.

(4) Shanghai Trust - Guizhou Jinyuan Perpetual Bonds Plan: with Shanghai Trust as Party A and Guizhou Jinyuan as Party B, both parties confirm that the period for each investment provided by Party A is an indefinite period, starting from the date when each investment fund provided by Party A reaches the bank account designated by Party B to receive investment funds (hereinafter referred to as the "investment fund payment date"). Unless otherwise provided in this contract or otherwise agreed in writing by both parties, Party B has the right to choose to repay the investment principal of the investment capital under this contract on any interest payment date after 7 years from each investment fund payment date, and settle the investment interest corresponding to the principal of the investment fund and all other payable but unpaid items, with Party A being notified in writing 90 days in advance. For each investment fund, the initial annual interest rate is 5.39%, which remains unchanged for 7 interest-bearing years from the investment fund payment date. The investment interest rate shall be adjusted once on the first day of the eighth interest-bearing year (hereinafter referred to as the "adjustment date") from the date of the investment fund payment date, and the adjusted interest rate shall be the interest rate applicable to the day before the adjustment date plus 200bp (the investment interest rate after adjustment is 7.39%), and shall remain unchanged during the 8th to 10th interest-bearing years. Thereafter, the investment interest rate will be adjusted every three years according to the above-mentioned method, and each time the adjustment range is 200bp. Deferred interest payment terms: Unless there is a mandatory interest payment event, Party B shall notify Party A in writing 20 working days in advance before each interest payment date. Party B may choose to postpone the current interest and all interest and its fructus that have been deferred in accordance with this clause until the next interest payment date, and is not limited by the number of deferred interest payments. During the deferred period, each deferred interest shall be increased by 300bp according to the current coupon rate to accumulate interest. Where Party B has deferred interest payment, until the deferred interest and its fructus are fully paid off, it cannot engage in the following acts: (1) issuing dividends to shareholders or paying interest to those whose order of repayment is inferior to the securities with perpetual claims that Party A invested under this contract; or (2) reducing the registered capital or repaying those whose order of repayment is inferior to the securities with perpetual claims that Party A invested under this contract.

(5) 16 Renewable Corporate Bonds 001: This bond takes every 5 interest-bearing years as one cycle. At the end of each cycle, the issuer has the right to choose to extend the term of the current bond by 1 cycle (that is, to extend it by 5 years), or choose to pay the bond in full at the end of the period. The interest rate of the current bond is 3.65%, and simple interest is calculated annually, excluding compound interest. The deferred interest will be calculated at the coupon rate of the current period during the period deferred on an accumulation basis. The coupon rate in the first cycle is the initial benchmark rate plus the initial spread, and the coupon rate in the subsequent cycle is adjusted to the current benchmark rate plus the initial spread plus 300 basis points. The initial spread is the coupon rate of the first cycle minus the initial benchmark interest rate. If in the future, due to factors such as macroeconomic and policy changes, the current benchmark interest rate is not available on the interest rate reset date, the current benchmark interest rate will be the same as the benchmark interest rate prior to the interest rate reset date. The right of the issuer to make a deferred payment of interest is attached. Unless mandatory interest payment event, on each interest payment date of the current bonds, the issuer can choose to defer to pay the current interest and all the interest and fructus that have been deferred in accordance with the present article to the next interest payment date and does not subject to any restrictions on the number of deferred interest payments; the foregoing deferred interest does not belong to the issuer's failure to pay the agreed interest in full. If the issuer decides to defer the interest payment, the issuer shall disclose the Announcement on Deferred Interest Payment 5 working days before the interest payment date.

(6) Shanghai Lujiazui Trust Co., Ltd. is a perpetual bond equity investor absorbed by Zhongwei New Energy Company and Zhongwei Thermal Power Company, subordinate to the Company's subsidiary SPIC Ningxia Qingtongxia Energy Aluminum Industry Group Co., Ltd., and it has invested RMB 4 billion and RMB 1 billion in equity in perpetual bonds in the two companies. According to the perpetual bond equity investment contract, the perpetual bond is subject to an indefinite investment period. After 5 years of investment, the two companies have the right to choose to repay all the money on any interest payment date, except for the occurrence of or existence of major adverse circumstances stipulated in the contract between the two companies (the two companies believe that it is agreed that major adverse circumstances can be independently controlled by them, and the probability of occurrence or existence is extremely small), the investor cannot request early repayment. The initial annual interest rate of the investment is 5.38% and stays unchanged for 5 years; the interest rate is raised by 200DP (2%, after the increase is 7.38%) within three years after the investment period expires 5 years; and the interest rate is increased by 300DP (3%) every three years thereafter. Investment interest is settled once a quarter, except for the existence of mandatory interest payment events (the two companies have dividends issued to shareholders, capital reductions or other perpetual bond principal repayment or interest payments within 12 months before interest payment), the two companies may choose to postpone the interest payment without at their own will, and the interest on the deferred payment will be calculated by raising the interest rate of the current coupon rate by 3%.

(7) Hwabao Trust - Huanghe Renewable Bonds: The Company's subsidiary Huanghe Hydropower Development Co., Ltd. and Hwabao Trust Co., Ltd. signed the Renewable Loan Contract (contract No.: 120160095800010002). The initial borrowing period is 3 years, and each year after the initial borrowing period expires is a renewed borrowing period. The borrower has the right to choose to extend the loan under this contract for one year before expiry of each borrowing period, or choose to return the full loan principal balance and all the unpaid interest payable, fruit interest, penalty interest and other expenses to the lender on the expiration date of each loan term. The loan interest rate under this contract is a floating interest rate, which is composed of an initial floating interest rate and a reset floating interest rate. After each loan term expires, the loan interest rate will be reset according to this contract, specifically: the initial floating interest rate is the benchmark interest rate, that is, 4.75%. Replacement floating interest rate: From the next day after each loan term expires, the trust loan interest rate shall be reset in accordance with this contract. The annualized interest rate after each reset shall jump by 200 basis points on the basis of the loan interest rate before reset, that is, the replacement interest rate = the interest rate executed in the current year + (the number of periods previously extended + 1) * 200BP.

(8) CITIC Trust Shanxi Aluminum Perpetual Bonds: The term of the financial instrument is an indefinite period, counting from the date on which the funds provided reach the account received by the issuer; unless otherwise specified or agreed by both parties, the issuer shall have the right to choose to repay the principal, unpaid interest and all other outstanding payments on any interest payment date after 8 years from the date of paying investment funds, but the investor should be notified in writing 90 days in advance, with the initial annual interest rate at 5.145%, which will remain unchanged for 8 interest-bearing years from the date of paying the investment funds. The interest rate is adjusted once on the first day of the 9th interest-bearing year from the date of granting investment funds. The adjusted interest rate is the interest rate used on the day before the adjustment day plus 200bps, and remains unchanged during the 9th to 11th interest-bearing years. Thereafter, the investment interest rate will be adjusted every three years, and each adjustment range will be 300 bps; March 20, June 20, September 20, and December 20 are the interest payment dates each year. The current principal and interest payable shall be transferred to the special account for investment funds 10 working days before the payment date.

(9) Shanghai International Trust Shanxi Aluminum Perpetual Bonds: The term of the financial instrument is an indefinite period, counting from the date on which the funds provided reach the account received by the issuer; unless otherwise specified or agreed by both parties, the issuer shall have the right to choose to repay the principal, unpaid interest and all other outstanding payments on any interest payment date after 8 years from the date of paying investment funds, but the investor should be notified in writing 90 days in advance, with the initial annual interest rate at 5.145%, which will remain unchanged for 8 interest-bearing years from the date of paying the investment funds. The interest rate is adjusted once on the first day of the 9th interest-bearing year from the date of granting investment funds. The adjusted interest rate is the interest rate used on the day before the adjustment day plus 200bps, and remains unchanged during the 9th to 11th interest-bearing years. Thereafter, the investment interest rate will be adjusted every three years, and each adjustment range will be 300 bps; March 20, June 20, September 20, and December 20 are the interest payment dates each year. The current principal and interest payable shall be transferred to the special account for investment funds 10 working days before the payment date.

(10) Renewable corporate bonds in 2017: the interest rate of the phase-I bond is 5.10%, the interest rate of the phase-II bond is 5.14%, and the interest rate of the phase-III bond is 5.13%. The rest of the content is the same as the "⑤ Renewable corporate bonds in 2016 (phase-I).

(11) Hwabao Trust Perpetual Bonds of Huanghe: Except that the interest rate on the current bonds is 19.1579% higher than the central bank's benchmark lending rate over the same period, the rest of the content is the same as the "⑦ Hwabao Trust Renewable Loans of Huanghe".

(12) Perpetual bonds of Agricultural Bank Financial Assets Investment Co., Ltd.: Except that the interest rate on the current bonds is 22.1053% higher than the central bank's loan benchmark lending rate over the same period, the rest of the content is the same as the "⑦ Hwabao Trust Renewable Loans of Huanghe".

(13) 3,020 Shares of China Power Development with Non-voting Convertible to Preferred Stocks: The dividend rate is set at 6MLIBOR + 450BPs. 6MLIBOR is determined according to the actual market value at the time of delivery and is adjusted once a year. If the dividend rate of preferred stocks exceeds 9%, China Power International shall have the right to require CNIC to transfer all the preferred stocks held to China Power International at the issue price and settle the dividends of the preferred stocks in cash. If convertible preferred stocks with non-voting rights are fully converted into ordinary shares, Seth Holdings Limited will hold approximately 33.38% of the voting rights of China Power Development.

(14) Renewable Corporate Bonds in 2018: The phase-I bonds have a term of 5 + N and a fixed interest rate. They can be renewed at the end of each cycle (that is, 5 years) or redeemed; the interests thereon shall be paid per year, and every 5 interest-bearing years is a cycle. At the end of each cycle, the issuer has the right to choose to extend the term of the current bonds by 1 cycle (that is, to extend the term by 5 years), or choose to redeem the bonds in full at the end of the cycle . The term of the phase-II bonds is 3 + N, and the rest of the content is the same as that of the phase-I bonds.

(15) Minmetals Trust Sichuan Perpetual Bonds (Phase I), (Phase II) (Phase III): The financial instrument has a non-fixed term, which is calculated from the date of granting investment funds (inclusive). Unless otherwise specified or agreed by both parties, the issuer shall have the right to choose to repay the principal, unpaid interest and all other unpaid amounts due on the corresponding day after 5 years from the date of granting investment funds, but the investor should be notified in writing 90 days in advance, with the initial annual interest rate at 6.8%, which will remain unchanged for 5 years from the date of paying the investment funds; the interest rate for 5-8 years was at 9.8%, and will be adjusted once every three years after 8 years; the adjusted interest rate shall be the interest rate used on the day before the day of the adjustment plus 1%; when the interest rate reaches 16% that year, it will no longer be adjusted.

(16) SPIC Ronghe Leasing Perpetual Bonds in 2018: On every two annual interest payment dates of the directional instrument in the current period, the issuer has the right to redeem the current perpetual notes at face value plus interest payable (including all deferred interest and its fruits). The directional instruments in the current period adopt fixed interest rates to calculate interest: the coupon rate of the first two interest-bearing years in the duration is the initial benchmark interest rate plus the initial interest spread. Specifically, the initial benchmark interest rate is the arithmetic average of treasury yields with a payable period of 2 years (rounded to 0.01%) in the yield curve for interbank fixed-rate treasury bonds of China bonds published in the China Bond Information Network (www.chinabond.com.cn) (or other websites approved by the Central Depository and Clearing Co., Ltd.) 5 working days before the book-filing date; if the issuer does not exercise the right of redemption, the coupon rate will be adjusted every 2 years starting from the third interest-bearing year. From the third interest-bearing year, the coupon rate will be adjusted to the current benchmark interest rate plus the initial spread plus 300 basis points, and will remain unchanged from the third interest-bearing year to the fourth interest-bearing year. The formula for determining the coupon rate: current coupon rate = current benchmark interest rate + initial interest spread + 300 basis points, the interest rate jumps from the first coupon adjustment date, and the increase in the interest rate will be maintained unchanged in following periods; if the current benchmark interest rate is not available on the interest rate adjustment date in the future due to changes in macro economy and policies and other factors, the coupon rate will be determined by using the benchmark interest rate of the previous period before the coupon rate adjustment date plus the initial interest spread plus 300 basis points .

(17) Hong Kong Treasury Perpetual Bonds in 2018: The issuer can exercise the option of redemption and can only redeem it in full. The coupon rate is 5.8%, with the simple interest calculated annually and excluding compound interest. The interest is paid every six months. The deferred interest will be calculated at the coupon rate of the current period during the period deferred on an accumulation basis. The reset date of the bond interest rate is the first optional redemption date, and the reset will be made every three years in the future. The formula for the reset interest rate is the sum of the following items: (a) initial interest margin 2.851% (b) US treasury bond rate (c) 4%. The right of the issuer to make a deferred payment of interest is attached. Unless mandatory interest payment event, on each interest payment date of the current bonds, the issuer can choose to defer to pay the current interest and all the interest and fruits that have been deferred in accordance with the present article to the next interest payment date and does not subject to any restrictions on the number of deferred interest payments; the foregoing deferred interest does not belong to the issuer's failure to pay the agreed interest in full. If the issuer decides to defer the payment of interest, it shall send a notice 15 working days before the interest payment date.

(18) Perpetual Corporate Medium-term Bonds in 2018: The term of the phase-I 01 bonds is 3 + N years, and the issuer's redemption option right is attached to the third and subsequent interest payment days of the current medium-term notes, with fixed interest rates. The term of the phase-I 02 bonds is 5 + N years, and the term of the phase-II 01 bonds is 3 + N years; the term of the phase-II 02 bonds is 5 + N years, and the rest of the content is the same as that of the phase-I 01 bonds.

(19) Jinyuan Zhongshui Preferred Stocks in 2018: The dividend rate is set as: the dividend rate within 5 years is 6.5%; the 6th year is the first dividend adjustment period, with the dividend adjusted to 8.5%; from the 7th year, there is a dividend adjustment period every 2 years, with a jump by 200BP on the basis of the previous year's dividend rate. When the dividend rate reaches 12%, it is no longer adjusted.

(20) Power Investment Perpetual Bonds in 2019: The Company publicly issued 13 issues of renewable corporate bonds in 2019, each of which is divided into two varieties. The basic term of Variety 1 is 3 years. At the end of the agreed basic term and at the end of each cycle, the Issuer has the right to exercise the option of renewal and extend it by one cycle (i.e. 3 years) according to the agreed basic term. The interest is settled at a fixed interest rate; interest payment is made per year. The basic term of Variety 2 is 5 years. At the end of the agreed basic term and at the end of each cycle, the Issuer has the right to exercise the option of renewal and extend it by one cycle (i.e. 5 years) according to the agreed basic term. The interest is settled at a fixed interest rate; interest payment is made per year.

(21) Shanghai Electric Power Perpetual Bonds in 2019: the phase-I medium-term notes in 2019 were issued with a total amount of RMB 1.6 billion, a coupon rate of 4.15%, and a term of 3+N years; the phase-II medium-term notes in 2019 were issued with a total amount of RMB 1.6 billion, a coupon rate of 3.99%, and a term of 3+N years.

(22) Hwabao Trust Perpetual Bonds of Huanghe: (1) The initial term of the bonds is 3 years, starting from the day of the funds transferred to the account designated by the borrower. In one month before the expiration of each loan term (including the initial loan term and the extended loan term, the same below), the borrower has the right to choose to extend the loan term under the contract for one year, or to repay the loan principal balance and all payable but unpaid interest, fruits, penalty interest and other expenses to the lender in full on the expiration date of each loan term. (2) In case of any of the following events occurring within 12 months prior to the interest settlement date of the borrower, the borrower may not postpone the interest of the interest-bearing period and all the interest and fruits interest that have been deferred as agreed in the Contract: 1) the borrower distributes or pay profits to its shareholders, or pay dividends or dividends to its shareholders; 2) the borrower reduces the registered capital. The profit from creditor's rights is the central bank's benchmark loan interest rate for the same period.

(23) SPIC International Energy Preferred Stocks in 2019: The dividends should be distributed no later than November 30 of each fiscal year, and the pre-audit of the cooperative company's distributable profits should be conducted in accordance with international accounting standards; if the pre-audit confirms that the cooperative company has profits that can be distributed, and the preferred stock dividend payable to the preferred stock investors should be first paid from the profits of the cooperative company. The dividend rate of preferred stocks is 5.5%. When the protection mechanism for investors stipulated in the agreement is triggered, the dividend rate of preferred stocks is changed to 8.5%; from the 11th anniversary date of the delivery date, the investor has the right to give the issuer written notice, requiring the issuer to repurchase or redeem all the investors 'preferred stocks at the agreed repurchase consideration within 60 natural days starting from the notice date.

(24) Jinyuan Zhongshui Preferred Stocks in 2019: The dividend rate is set as: the dividend rate within 5 years is 6.5%; the 6th year is the first dividend adjustment period, with the dividend adjusted to 8.5%; from the 7th year, there is a dividend adjustment period every 2 years, with a jump by 200BP on the basis of the previous year's dividend rate. When the dividend rate reaches 12%, it is no longer adjusted. If the issuer fails to pay dividends to Party B in a certain interest-bearing year, the difference will accumulate in the next year, and the difference compensation shall be calculated at a simple interest rate of 6.5% from the corresponding interest payment date to the date of actual distribution and payment to Party B, and shall be distributed and paid to the investor in the actual distribution. After the expiration of 5 years from December 19, 2018, the issuer has the right to exercise the right of redemption. The redemption price for a preferred stock converted from bond per share is the sum of the par value, the unpaid dividends per share due and payable, and the difference compensation (if any).

8.50.3 Changes in financial instruments such as preferred stocks and perpetual bonds issued

Financial instruments issued	Amount as at January 1, 2019		Increase in 2019		Decrease in 2019		Balance as at December 31, 2019	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
Renewable Corporate Bonds in 2015	95,000,000	9,446,000,000.00				15,000.00	95,000,000	9,445,985,000.00
Renewable Corporate Bonds in 2016	40,000,000	3,923,000,000.00					40,000,000	3,923,000,000.00
Renewable Corporate Bonds in 2017	45,000,000	4,486,677,547.14					45,000,000	4,486,677,547.14
Perpetual Corporate Medium-term Bonds in 2018	60,000,000	6,000,000,000.00				8,108,490.57	60,000,000	5,991,891,509.43
Renewable Corporate Bonds in 2018	40,000,000	3,988,439,245.28					40,000,000	3,988,439,245.28
Shanghai Trust-Guizhou Jinyuan Perpetual Bonds Plan	50,000,000	5,000,000,000.00					50,000,000	5,000,000,000.00
Lujiazui Trust SPIC Zhongwei New Energy Perpetual Bonds		4,000,000,000.00						4,000,000,000.00
Share 3020 of China Power Development with Non-voting Convertible to Preferred Stocks	3,020	3,597,775,558.20					3,020	3,597,775,558.20
Hong Kong Treasury Perpetual Bonds in 2018		3,431,600,000.00						3,431,600,000.00
Hwabao Trust Renewable Bonds of Huanghe		1,250,000,000.00				1,250,000,000.00		
Lujiazui Trust SPIC Zhongwei Thermal Power Perpetual Bonds		1,000,000,000.00				500,000,000.00		500,000,000.00
Hwabao Trust Perpetual Bonds of		1,000,000,000.00						1,000,000,000.00

Financial instruments issued	Amount as at January 1, 2019		Increase in 2019		Decrease in 2019		Balance as at December 31, 2019	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
Huanghe								
SPIC Ronghe Leasing Perpetual Bonds in 2018	10,000,000	1,000,000,000.00					10,000,000	1,000,000,000.00
Minmetals Trust Sichuan Perpetual Bonds		800,000,000.00						800,000,000.00
Minmetals CITIC Trust Shanxi Aluminum Perpetual Bonds		500,000,000.00						500,000,000.00
Jinyuan Zhongshui Preferred Stocks in 2018	5,000,000	500,000,000.00					5,000,000	500,000,000.00
Shanghai International Trust Shanxi Aluminum Perpetual Bonds		301,000,000.00						301,000,000.00
Agricultural Bank Financial Perpetual Bonds of Huanghe		200,000,000.00						200,000,000.00
Perpetual bonds in 2019			250,000,000	24,930,192,452.74			250,000,000	24,930,192,452.74
Perpetual debts of Shanghai Electric Power			32,000,000	3,200,000,000.00			21,000,000	3,200,000,000.00
Hwabao Trust Renewable Bonds of Huanghe				1,500,000,000.00				1,500,000,000.00
SPIC International Energy Preferred Stocks in 2019				1,026,000,000.00				1,026,000,000.00
Guizhou Zhongshui Energy Preferred Stocks				470,000,000.00				470,000,000.00
Total		50,424,492,350.62		30,026,192,452.74		1,758,123,490.57		79,792,561,312.79

8.50.4 Information of equity instrument holders

Item	Amount as at December 31, 2019	Amount as at January 1, 2019
1. Equity (shareholder's equity) of the owner attributable to the parent company	52,766,185,754.59	27,844,116,792.42
(1) Equity of the owner attributable to the parent company and holding common shares		
(2) Equity of the owner attributable to the parent company and holding other equities	52,766,185,754.59	27,844,116,792.42
Including: net profit	2,604,620,026.43	1,645,286,240.81
Total comprehensive income		
Dividends distributed in the current period	2,604,620,026.43	1,645,286,240.81
Accumulated undistributed dividends		
2. Equity attributable to minority shareholders	27,026,375,558.20	22,580,375,558.20
(1) Equity attributable to minority shareholders relating to common shares		
(2) Equity attributable to the owner holding other equities of minority shareholders	27,026,375,558.20	22,580,375,558.20

8.51 Lease liabilities

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Lease payment	5,703,871,725.29	6,503,899,670.08
Less: financing charges unrecognized	972,340,680.71	750,437,595.03
Non-current liabilities maturing within one year by reclassification	626,609,934.98	1,067,336,752.69
Net lease liability	4,104,921,109.60	4,686,125,322.36

8.52 Long-term payables

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
Long-term payables	33,867,232,905.20	10,515,107,724.98	6,332,184,702.94	36,433,986,217.84
Special payables	3,078,951,097.17	1,054,389,209.32	1,045,489,561.44	3,005,615,581.59
Total	36,946,184,002.37	11,569,496,934.30	7,377,674,264.38	39,439,601,799.43

8.52.1 Long-term payables

The top 5 long-term payables in terms of ending balances:

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Finance lease payment of National Nuclear Capital Holdings Limited	8,546,211,035.07	4,886,293,619.28
Finance lease payment of Shanghai Electric Power Co., Ltd.	7,418,009,966.07	8,767,617,272.68
Finance lease payment of SPIC Guizhou Jinyuan Co., Ltd.	2,528,409,196.14	1,572,603,352.12
Energy investment and financing lease payment of SPIC Jilin Energy Investment Co., Ltd.	2,077,442,900.00	625,442,900.00
Finance lease payment of SPIC Heilongjiang Branch	1,516,665,336.24	
Total	22,086,738,433.52	15,851,957,144.08

8.52.2 Special payables

The top 5 long-term payables in terms of ending balances:

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
Special funds for major science and technology	803,000,000.00	7,400,000.00	4,200,000.00	806,200,000.00
Funds allocated by the Ministry of Finance for the development of 300MW heavy gas turbine product project	606,697,334.31	17,596,412.40		624,293,746.71
Funds for heating renovation of the "three supply and one industry" Guanzhuang Project	198,897,200.00	234,191,800.00		433,089,000.00
Funds allocated by the Ministry of Finance for Shanghai experimental power station condition construction project	200,000,000.00			200,000,000.00
Special funds for environmental protection		85,610,000.00		85,610,000.00
Total	1,808,594,534.31	344,798,212.40	4,200,000.00	2,149,192,746.71

8.53 Long-term employee remuneration payable

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
I. Post-employment benefit - net liabilities of defined benefit plans				
II. Dismissal benefits	13,555,394.52	1,725,808.73	4,267,634.59	11,013,568.66
III. Other long-term benefits	1,955,924.47		287,556.02	1,668,368.45
Total	15,511,318.99	1,725,808.73	4,555,190.61	12,681,937.11

8.54 Estimated liabilities

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Abandonment expenses	234,300,077.71	107,677,604.60
External guarantee	52,892,227.63	39,017,446.55
Pending litigation	67,410,127.60	61,210,244.79
Product quality guarantee	102,113,427.57	83,912,925.23
Onerous contract to be executed	29,507,658.04	41,558,895.74
Others	41,743,921.77	4,454,641.83
Total	527,967,440.32	337,831,758.74

Remark: Please refer to Note 9. “Contingent matters” for the details of the above-mentioned estimated liabilities.

8.55 Deferred income

Item	Balance as at January 1, 2019	New subsidy in 2019	Amount included in the current profit or loss in 2019	Amount refunded in 2019	Other changes	Balance as at December 31, 2019	Related to assets/related to income
Financial appropriation for one-pipe to one-household	84,544,906.48	921,033.00	4,437,251.76			81,028,687.72	Related to assets
Financial appropriation for clean energy gas to water	73,000,000.00		3,650,000.04			69,349,999.96	Related to assets
Construction fee of municipal finance coal-fired alternative pipe network	12,333,333.15		800,000.04			11,533,333.11	Related to assets
Special fund subsidies of the central government and province for air pollution prevention in 2015	5,176,500.00		304,500.00			4,872,000.00	Related to assets
Subsidy funds for central enterprises to enter Hebei	3,823,529.40		294,117.65			3529411.75	Related to assets
Huayang Nianhua heat supply renovation project	459,668.20		28,729.20			430,939.00	Related to assets
Xinhua	450,000.00		30,000.00			420,000.00	Related to

Item	Balance as at January 1, 2019	New subsidy in 2019	Amount included in the current profit or loss in 2019	Amount refunded in 2019	Other changes	Balance as at December 31, 2019	Related to assets/related to income
thermoelectric gas replacement project							assets
Pipeline construction fees	401,579,873.42	47,371,680.41	72,176,419.26			376,775,134.57	Related to assets
Special government funds for No. 7 and 8 boiler flue gas denitrification renovation project		1,860,000.00	50,000.00			1,810,000.00	Related to assets
Expense for heat source construction	872,960,185.16	61,731,481.50	62,739,025.24			871,952,641.42	Related to assets
Compensation for 100,000t fairway construction	661,467,281.44		13,519,378.56			647,947,902.88	Related to assets
Research on CAP1400 key design technology	470,163,946.41				50,666,590.07	419,497,356.34	Related to assets
Ability enhancement project	314,000,000.00					314,000,000.00	Related to assets
Research on operation and maintenance technology of CAP1400	273,447,511.39	11,345,900.60				284,793,411.99	Related to assets

Item	Balance as at January 1, 2019	New subsidy in 2019	Amount included in the current profit or loss in 2019	Amount refunded in 2019	Other changes	Balance as at December 31, 2019	Related to assets/related to income
Nuclear Power Plant							
Compensation for Yancheng thermal power demolition	192,708,333.33	104,516,100.00	14,832,680.33			282,391,753.00	Related to assets
Amortization of market infrastructure capacity fees	183,740,340.36	107,131,204.21	30,324,130.56			260,547,414.01	Related to income
The 13th five-year project on the research and development of a digital instrument control system with enhanced information security by using domestic chips	200,655,800.00	49,516,200.00	5,011.06		15,525,100.00	234,641,888.94	Related to assets
Land compensation for water cooling pool	232,410,698.29		16,600,764.12			215,809,934.17	Related to assets
Land compensation for the first plant	211,113,974.29		20,338,770.24			190,775,204.05	Related to assets
Prototype development of CAP1400 nuclear	201,318,536.75		19,064,457.00			182,254,079.75	Related to assets

Item	Balance as at January 1, 2019	New subsidy in 2019	Amount included in the current profit or loss in 2019	Amount refunded in 2019	Other changes	Balance as at December 31, 2019	Related to assets/related to income
power plant digital instrument control system engineering							
CAP1400 engineering design verification and related tests		183,585,500.00			1,504,799.18	182,080,700.82	Related to assets
Development of CAP1400 nuclear power pumps, valves, electrical equipment and measuring instruments	163,800,838.85				17,119,464.65	146,681,374.20	Related to assets
Technology research on CAP1400 nuclear island major equipment	168,566,670.50				22,243,273.00	146,323,397.50	Related to assets
Nuclear island key components automatic detection and maintenance equipment and technology research and development platform	147,498,958.92		11,089,645.92			136,409,313.00	Related to assets

Item	Balance as at January 1, 2019	New subsidy in 2019	Amount included in the current profit or loss in 2019	Amount refunded in 2019	Other changes	Balance as at December 31, 2019	Related to assets/related to income
Nuclear safety related equipment identification and material evaluation test platform	127,379,800.00		996,695.81			126,383,104.19	Related to assets
PCS subject assets		145,665,557.56	25,519,837.18			120,145,720.38	Related to assets
Changshu power generation-environmental protection repayment	105,088,628.62	300,000.00	8,520,944.97			96,867,683.65	Related to income
ACME subject assets		107,907,506.94	21,580,854.04			86,326,652.90	Related to assets
Refund of land-transferring fees	80,251,357.99		1,953,380.85			78,297,977.14	Related to assets
Refund of the government for phase-I land	68,750,000.01		1,636,904.76			67,113,095.25	Related to income
Rewards and subsidies for denitrification and desulfurization construction	70,589,685.81		6,956,616.51			63,633,069.30	Related to assets
Lanzhou heat pipe network construction fees	46,611,472.28	7,387,686.16	2,541,777.69			51,457,380.75	Related to assets
Compensation for	51,381,873.53			2,986,899.60		48,394,973.93	Related to

Item	Balance as at January 1, 2019	New subsidy in 2019	Amount included in the current profit or loss in 2019	Amount refunded in 2019	Other changes	Balance as at December 31, 2019	Related to assets/related to income
customers of Caojing thermoelectricity bayer measurement station							income
Expenses of Xiangshan 330 booster station capacity access	47,146,838.47	191,450.40	3,500,000.00			43,838,288.87	Related to assets
Heating pipe network fee	30,677,311.41	16,466,338.99	6,985,042.03			40,158,608.37	Related to income
Subsidies for environmental protection	34,051,883.35		2,105,230.68			31,946,652.67	Related to assets
IVR subject assets		35,702,292.27	6,248,097.61			29,454,194.66	Related to assets
Subsidies for reconstruction of 1# dedusting system of Shanghai Waigaoqiao Power Plant	27,130,000.33		1,960,000.00			25,170,000.33	Related to assets
Compensation for the resettlement of migrants from Three Gorges area	27,471,608.95		4,166,244.60			23,305,364.35	Related to assets
Changshu power generation-land	23,226,166.48		1,514,750.04			21,711,416.44	Related to assets

Item	Balance as at January 1, 2019	New subsidy in 2019	Amount included in the current profit or loss in 2019	Amount refunded in 2019	Other changes	Balance as at December 31, 2019	Related to assets/related to income
compensation							
Reactor core project assets		27,068,461.77	5,589,057.00			21,479,404.77	Related to assets
Science and technology innovation policy fund of Changping Science and Technology Commission		20,343,323.00	710,720.63			19,632,602.37	Related to assets
Update and addition of facilities and equipment in 2019		20,070,000.00	2,681,577.57			17,388,422.43	Related to assets
Special fund subsidy for Qinghe power generation and environmental protection	18,103,749.93		1,321,250.04			16,782,499.89	Related to assets
Subsidies for environmental protection	17,995,535.56		1,467,140.00			16,528,395.56	Related to assets
Fund subsidy allocated by the provincial finance for environmental protection	17,894,299.25		1,789,429.56			16,104,869.69	Related to assets

Item	Balance as at January 1, 2019	New subsidy in 2019	Amount included in the current profit or loss in 2019	Amount refunded in 2019	Other changes	Balance as at December 31, 2019	Related to assets/related to income
Government subsidy for R & D office of photovoltaic materials and equipment	16,285,099.97		1,663,117.85			14,621,982.12	Related to assets
Subsidy funds for the 2019 electrolytic aluminum output increment plan		15,000,000.00	750,000.00			14,250,000.00	Related to assets
Coal to gas construction funds	15,000,000.16		999,999.96			14,000,000.20	Related to assets
Central and provincial air pollution prevention and environmental protection guiding funds from Jiawang District Finance Bureau	8,379,309.60	6,000,000.00	1,483,783.84			12,895,525.76	Related to assets
Government subsidy obtained by Fuyu Chengrui Wind Energy Co., Ltd.	135,661.29		8,659.24			127,002.05	Related to assets
Deferred income from the subject		12,514,868.00				12,514,868.00	Related to assets

Item	Balance as at January 1, 2019	New subsidy in 2019	Amount included in the current profit or loss in 2019	Amount refunded in 2019	Other changes	Balance as at December 31, 2019	Related to assets/related to income
on 300MW Gas Turbine Overall Design of Beijing Science and Technology Commission							
Technical reform expenses	13,120,000.00		820,000.00			12,300,000.00	Related to assets
Special government subsidies for new energy	10,207,600.00	1,700,000.00				11,907,600.00	Related to income
Wuhu Power Generation Co., Ltd .- Refunds of environmental protection	12,942,349.55		1,057,000.00			11,885,349.55	Related to assets
Government Subsidy for Yuhua branch	12,545,233.33		821,450.04			11,723,783.29	Related to assets
Mechanism subject assets		13,133,143.60	1,765,289.11			11,367,854.49	Related to assets
Special fund for energy saving and emission reduction of Baicheng Power Generation Company	11,906,900.00		748,300.01			11,158,599.99	Related to assets
A major scientific and technological	11,475,000.00		372,842.16			11,102,157.84	Related to assets

Item	Balance as at January 1, 2019	New subsidy in 2019	Amount included in the current profit or loss in 2019	Amount refunded in 2019	Other changes	Balance as at December 31, 2019	Related to assets/related to income
project on Research on the Key Technologies of the Industrial Chain of New High-efficiency Batteries in Qinghai Province							
Update of facility and equipment in 2018	14,260,203.04		3,227,235.93			11,032,967.11	Related to assets
Update and addition of DX17-SSSB facility and equipment	12,533,572.68		2,371,118.74			10,162,453.94	Related to assets
Government subsidy for solar power system laboratory	10,000,000.00					10,000,000.00	Related to assets
Amortization of government subsidy for Sichuan Zhongdian Fuxi Power Development Co., Ltd.	10,725,378.96		825,029.17			9,900,349.79	Related to income
Transformation of No. 1 and No.	9,900,000.00		50,000.00			9,850,000.00	Related to assets

Item	Balance as at January 1, 2019	New subsidy in 2019	Amount included in the current profit or loss in 2019	Amount refunded in 2019	Other changes	Balance as at December 31, 2019	Related to assets/related to income
2 desulfurization systems							
Compensation for land	9,833,519.56		239,355.46			9,594,164.10	Related to assets
Fund appropriation to highly-skilled talents training base	5,348,099.88	5,062,340.00	956,422.17			9,454,017.71	Related to assets
Funds for environmental governance	9,863,530.00		609,096.00			9,254,434.00	Related to assets
School security engineering	9,652,964.90		868,300.80			8,784,664.10	Related to assets
Government subsidies for slicing projects	9,100,000.00		260,000.00			8,840,000.00	Related to assets
Power school open and training project	10,988,097.99		2,246,062.31			8,742,035.68	Related to assets
Reconstruction of laboratory building and equipment	7,345,389.28	945,409.38				8,290,798.66	Related to assets
Severe accident mitigation subject assets		9,465,417.60	1,363,119.14			8,102,298.46	Related to assets
Special fund-Huanggang Dabieshan Power Generation Co.,	7,710,000.00					7,710,000.00	Related to income

Item	Balance as at January 1, 2019	New subsidy in 2019	Amount included in the current profit or loss in 2019	Amount refunded in 2019	Other changes	Balance as at December 31, 2019	Related to assets/related to income
Ltd.							
Gym maintenance works	7,710,000.00		49,500.00			7,660,500.00	Related to assets
New cathode energy-saving renovation funds for electrolytic cell	7,193,698.07	1,400,000.00	1,074,770.04			7,518,928.03	Related to assets
Heating assets acquired by Tonghua Energy Industry from donation	7,525,685.39		379,446.36			7,146,239.03	Related to assets
Special fund for air pollution prevention	6,835,512.30	900,000.00	646,206.73			7,089,305.57	Related to assets
Government subsidy for phase-I project of Xining battery module	7,155,555.54		311,111.12			6,844,444.42	Related to assets
Renovation of low nitrogen burner plus selective catalytic reduction denitration process	7,443,113.92		790,419.12			6,652,694.80	Related to assets
Subsidies for flue gas	6,783,000.00		184,000.00			6,599,000.00	Related to assets

Item	Balance as at January 1, 2019	New subsidy in 2019	Amount included in the current profit or loss in 2019	Amount refunded in 2019	Other changes	Balance as at December 31, 2019	Related to assets/related to income
desulfurization renovation							
Reconstruction of the dust removal and fire protection system for the production on the ground	6,936,000.00		408,000.00			6,528,000.00	Related to assets
Key equipment subject assets		7,648,904.57	1,188,150.79			6,460,753.78	Related to assets
Special fund for stabilization of posts		6,384,780.00				6,384,780.00	Related to income
Environmental funds allocated by the government	6,764,833.18		413,000.04			6,351,833.14	Related to assets
Environmental protection funds for boiler desulfurization and denitrification transformation	6,814,208.37		851,776.04			5,962,432.33	Related to assets
Special funds for environmental protection	6,374,999.84		425,000.04			5,949,999.80	Related to assets
Level-1 iron furnace and Hekou	6,537,112.47		653,711.25			5,883,401.22	Related to assets

Item	Balance as at January 1, 2019	New subsidy in 2019	Amount included in the current profit or loss in 2019	Amount refunded in 2019	Other changes	Balance as at December 31, 2019	Related to assets/related to income
Hydropower Station hydroelectric generating unit and auxiliary equipment in Qianshan County							
Library maintenance works	5,540,000.00		43,500.00			5,496,500.00	Related to assets
Tax rebates for domestic equipment purchased by Caojing Thermoelectricity	6,235,225.90					6,235,225.90	Related to assets
Subsidies allocated by national finance for desulfurization projects	5,789,473.82		578,947.32			5,210,526.50	Related to assets
Equipment for increasing efficiency and expanding capacity of level-1 iron furnace and Hekou Hydropower	5,755,554.93		575,555.55			5,179,999.38	Related to assets

Item	Balance as at January 1, 2019	New subsidy in 2019	Amount included in the current profit or loss in 2019	Amount refunded in 2019	Other changes	Balance as at December 31, 2019	Related to assets/related to income
Station in Qianshan County							
Other small subsidies	3,889,415,569.61	1,027,539,585.26	489,311,157.12		402,849,307.23	4,024,794,690.52	Related to assets
Total	9,905,038,551.84	2,056,776,165.22	901,420,866.00	2,986,899.60	509,908,534.13	10,547,498,417.33	

8.56 Other non-current liabilities

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Interest rate swaps	25,434,948.30	108,522,911.00
Energy swap	65,271,310.76	1,256,280.00
Poverty alleviation expenditure	312,275,477.61	
Output tax to be carried forward	1,007,403,797.16	1,855,181.52
Others	2,409,302,474.36	397,465,523.87
Total	3,819,688,008.19	509,099,896.39

8.57 Paid-up capital

Investor	Balance as at January 1, 2019		Increase in 2019	Decrease in 2019	Balance as at December 31, 2019	
	Investment amount	Proportion (%)			Investment amount	Proportion (%)
Total	35,000,000,000.00	100.00			35,000,000,000.00	100.00
State-owned Assets Supervision and Administration Commission of the State Council	35,000,000,000.00	100.00			35,000,000,000.00	100.00

8.58 Other equity instruments

Financial instruments issued	Amount as at January 1, 2019		Increase in 2019		Decrease in 2019		Amount as at December 31, 2019	
	Quantity	Book value	Quantity	Book value	Quantity	Book value	Quantity	Book value
Perpetual bonds	280,000,000	27,844,116,792.42	250,000,000	25,000,000,000.00		77,931,037.83	530,000,000	52,766,185,754.59
Total	280,000,000	27,844,116,792.42	250,000,000	25,000,000,000.00		77,931,037.83	530,000,000	52,766,185,754.59

Remarks: (1) The total amount of perpetual bonds issued by the Company at the end of 2018 was RMB 27,844,116,792.42. Specifically: in March 2015, RMB 4,000,000,000.00 of 5 + N-year perpetual bonds were issued; in June 2015, RMB 3,000,000,000.00 of 3 + N-year perpetual bonds was issued; in July 2015, RMB 2,500,000,000.00 of 5 + N-year perpetual bonds was issued; in June 2016, RMB 4,000,000,000.00 of 5 + N-year perpetual bonds was issued; in August 2017, RMB 1,500,000,000.00 of renewable corporate bonds in 2017 (phase I) was issued with the bond term for 5+N years; in October 2017, RMB 1,500,000,000.00 of renewable corporate bonds in 2017 (phase II) and RMB 1,500,000,000.00 of renewable corporate bonds in 2017 (phase III) were issued with the bond term for 5+N years; in June 2018, RMB 2,500,000,000.00 of renewable corporate bonds in 2018 (phase I) and RMB 1,500,000,000.00 of renewable corporate bonds in 2018 (phase II) were issued with the bond term for 5+N years; in November 2018, RMB 3,000,000,000.00 of perpetual corporate medium-term bonds in 2018 (phase I) was issued, including RMB 2,200,000,000.00 of bonds with term of 3+N years and RMB 800,000,000.00 of bonds with term of 5+N years; in December 2018, RMB 3,000,000,000.00 of perpetual corporate medium-term bonds in 2018 (phase II) was issued, including RMB 2,000,000,000.00 of bonds with term of 3+N years and RMB 1,000,000,000.00 of bonds with term of 5+N years. There are 13 phases of renewable corporate bonds issued in 2019, the bonds in each phase is divided into two varieties; the Variety 1 has a term of 3 + N years with the total amount of RMB 15,000,000,000.00; the Variety 2 has a term of 5 + N years with the total amount of RMB 10,000,000,000.00. Please see the Note 8.50 for details of the perpetual bonds issued at the end of the year.

(2) The underwriting fees of the principal underwriters including Everbright Securities, Ping An Securities and GF Securities paid by the Company were RMB 54,000,000.00 (in 2015), RMB 77,000,000.00 (in 2016), RMB 13,325,849.08 (in 2017), RMB 11,557,358.50 (in 2018) and RMB 77,931,037.83 (in 2019), which directly offset equity instruments in accordance with the requirements of the Provisions on the Difference between Financial Liabilities and Equity Instruments and Relevant Accounting Treatment.

8.59 Capital reserve

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
I. Capital (or share capital) premium	1,671,769,578.15	11,319,057,726.18	699,526,696.39	11,922,759,785.49
II. Other capital reserves	5,609,060,371.85	153,899,668.56	402,559,438.86	5,728,941,424.00
Total	7,280,829,950.00	11,472,957,394.74	1,102,086,135.25	17,651,701,209.49
Including: capital reserves exclusively owned by the State				

Remark 1: The capital premium increased by RMB 11,319,057,726.18 in 2019.

(1) The introduction of strategic investors by subsidiaries of the Company resulted in an increase in capital reserves. The share of net assets enjoyed by the Company is calculated based on the shareholding ratio or the new shareholding ratio, with the total increase in capital reserves by RMB 9,658,328,451.69. Among them, RMB 9,595,260,658.15 was affected by Qinghai Huanghe Hydropower Development Co., Ltd. subordinate to SPIC Huanghe Hydropower Development Co., Ltd.; RMB 23,096,840.30 was affected by Quyang New Energy Power Generation Co., Ltd. and Haixing Dongfang New Energy Power Generation Co., Ltd. subordinate to SPIC Hebei Electric Power Co., Ltd.; RMB 29,499,031.21 was affected by Hebei Lyudong Electric Power Co., Ltd. subordinate to SPIC Dongfang New Energy Corporation; RMB 6,105,818.13 was affected by National Nuclear Capital Holdings Limited; RMB 4,366,103.90 was affected by SPIC Northeast New Energy Development Co., Ltd. subordinate to SPIC Northeast Electric Power Co., Ltd.;

(2) In the event of external equity transfer by subsidiaries during the year, the Company's capital reserve increased by RMB 733,119,274.81 based on the transfer consideration and book value of net assets. Shanghai Electric Power Co., Ltd.'s disposal of minority equity and other internal equity transactions resulted in RMB 365,722,325.89 affected; the transfer of the equity of Hub Power Generation Company by Pakistan Investment Company affiliated to China Power International Development Limited and the transfer of equity of Pingwei Project by China Power Development Co., Ltd. affiliated to China Power International Development Limited resulted in RMB 177,121,716.02 affected; purchase of minority interests of Tongbai Thermoelectricity by SPIC Jilin Energy Investment Co., Ltd., and the disposal of the equity held by the Company's subsidiaries, Tonghua Thermal Power Co., Ltd. and Baishan Thermal Power Co., Ltd. by Jilin Electric Power Co., Ltd. affiliated to SPIC Jilin Energy Investment Co., Ltd. resulted in RMB 65,459,599.68 affected; and the equity transactions in other subordinate units resulted in RMB 124,815,633.22 in total.

(3) If the subsidiary of the Company has acquired minority shareholders' equity, the capital reserve enjoyed by the Company will increase by RMB 478,142,321.31 calculated based on the purchase consideration and the book value of the net assets purchased. Among them: the Clean Energy subordinate to China Power International Development Limited was delisted, and its parent company China Power International New Energy Holding Company Limited has purchased social public stocks resulting in the affected amount of RMB 470,501,841.66; other subsidiaries' acquisition of minority interests affected a total of RMB 7,324,537.69.

(4) Debt-to-equity swaps of the Company's subsidiaries resulted in changes in capital reserves. The Company achieved the total net increase in capital reserves by RMB 275,069,429.71 in accordance with the shareholding ratio. Among them: RMB 226,626,093.31 was affected by Qinghai Huanghe Hydropower Development Co., Ltd. subordinate to SPIC Huanghe Hydropower Development Co., Ltd.; RMB 48,443,336.41 was affected by SPIC Xinjiang Energy and Chemical Industry Group Hami Co., Ltd. subordinate to SPIC Xinjiang Energy and Chemical Industry Co., Ltd.;

(5) The Company received financial appropriations resulting in an increase in capital reserves by RMB 63,170,000.00.

(6) Matters such as Shanghai Electric Power, China Power International and other companies affiliated to the Company that have experienced external capital increase premiums and targeted public offerings have resulted in an increase in the capital reserves by RMB 111,228,248.66.

Remark 2: The capital premium decreased by RMB 699,526,696.39. Among them: the Company's subsidiary SPIC Dongfang New Energy Corporation issued targeted and additional shares under the same control to merge SPIC Capital Holding Co., Ltd. and SPIC Finance Co., Ltd.. Due to changes in the shareholding ratios of the Company in above merged companies, the capital reserves decreased by RMB 631,885,913.69; matters such as the purchase of Minority equity or the withdrawn of minority shareholders of Shanghai Electric Power, National Nuclear Power, and other companies subordinate to the Company resulted in a decrease in capital reserves by RMB 67,640,782.70.

Remark 3: Other capital reserves increased by RMB 153,899,668.56. Among them: the Company's subsidiary SPIC Logistics Co., Ltd. has the equity in Guizhou Railway Investment Co., Ltd. Changes in other equity in the current period resulted in an increase in the capital reserves attributable to the parent company by RMB 151,318,443.50; other matters of subsidiaries of the Company resulted in an increase in the capital reserves by RMB 2,581,225.06.

Remark 4: Other capital reserves decreased by RMB 402,559,438.86. Among them: the Company's subsidiary Power Investment Huanghe (Jiaxing) Energy Investment Partnership (Limited Partnership) liquidated in this period, resulting in a decrease in the capital reserve by RMB 265,217,480.54; the external transfer of "three supply and one industry" occurring in companies at lower level subordinate to the Company's subsidiaries, SPIC Northeast Electric Power Co., Ltd. and SPIC Jilin Energy Investment Co., Ltd. resulted in a decrease in the capital reserve by RMB 96,620,907.76. The units at lower level subordinate to the Company conducted the accounting of such matters as changes in equity of associated enterprise by equity method, resulting in a decrease in capital reserve by RMB 40,721,050.56.

8.60 Special reserve

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019	Remark
Work safety costs	101,546,514.71	306,568,005.39	304,026,575.76	104,087,944.34	
Maintenance Fee	51,646,388.62	480,479,773.49	467,429,686.44	64,696,475.67	
Others	11,415,174.21	7,440,291.03	7,380,121.90	11,475,343.34	
Total	164,608,077.54	794,488,069.91	778,836,384.10	180,259,763.35	

Remark: The special reserve increased by RMB 1,524,256,135.11 in this year, including the part attributable to the equity of the parent company's owners increasing by RMB 794,488,069.91 and the part attributable to minority equity increasing by RMB 729,768,065.20, which were withdrawn in the current year; the special reserve decreased by RMB 1,486,933,444.73, including the part attributable to the equity of the parent company's owners decreasing by RMB 778,836,384.10 and the part attributable to minority equity decreasing by RMB 708,097,060.63, which were used in the current year.

8.61 Undistributed profit

Item	Year 2019	Year 2018
Balance at the beginning of the current period	4,890,541,133.61	5,044,301,744.95
Increase in the current period	1,315,961,095.64	1,491,525,629.47
Including: transferred-in net profit in the current period	1,240,400,645.84	1,169,072,608.48
Other adjustment factors	75,560,449.80	322,453,020.99
Decrease in the current period	3,035,647,313.55	1,645,286,240.81
Including: surplus reserves withdrawn in the current period		
General risk reserves withdrawn in the current period		
Cash dividends distributed in the current period	257,304,200.00	
Transfer to paid-in capital		
Other decrease	2,778,343,113.55	1,645,286,240.81
Balance at the end of the current period	3,170,854,915.70	4,890,541,133.61

Remark 1: The balance of undistributed profits at the end of the previous year was RMB 4,959,889,423.24, and the balance at the beginning of the year decreased by RMB 69,348,289.63. The reason for the change was the correction of previous errors. For details of the changes, please refer to Note 5 "Statements on changes in accounting policies and accounting estimates and correction of errors as well as other adjustments ".

Remark 2: The increase of this year was RMB 1,315,961,095.64, including: RMB 1,240,400,645.84 resulting from the transfer of the net profit of this year and RMB 75,560,449.80 of the increase resulting from other factors, mainly including: the transfer of the investment in other equity instruments held by SPIC Jilin Energy Investment Co., Ltd., the direct transfer of changes in fair value originally included in other comprehensive income to undistributed profit. The Company increased the undistributed profit by RMB 55,489,980.79 according to the shareholding ratio. Other factors caused an increase in undistributed profits totaling RMB 20,070,469.01.

Remark 3: The decrease in this period is RMB 3,035,647,313.55. Among them, the Group paid a dividend of RMB 257,304,200.00 to the SASAC; RMB 2,604,620,026.43 of interests on perpetual bonds interest was distributed; other factors caused a decrease by RMB 173,723,087.12, mainly factor: units subordinate to SPIC Northeast Electric Power Co., Ltd., SPIC Huanghe Hydropower Development Co., Ltd. and other companies occurred the "three supply and one industry" resulting in a decrease in undistributed profit by RMB 68,585,243.58. SPIC Inner Mongolia Energy Co., Ltd. transferred 100% equity of its subsidiary, SPIC Mengxi Energy Co., Ltd., resulting in a decrease in undistributed profits by RMB 20,814,233.22; Wuling Power Co., Ltd. subordinate to China Power International Development Limited acquired minority equity, resulting in a decrease in undistributed profits by RMB 20,407,826.31; other small factors resulted in a total decrease by RMB 63,915,784.01.

8.62 Operating income and operating costs

Item	Year 2019		Year 2018	
	Income	Cost	Income	Cost
1. Sub-total of primary business	267,072,255,124.64	210,433,285,224.92	221,849,484,910.22	179,985,216,647.83
Electric power	176,697,130,857.35	129,183,139,376.05	147,760,522,208.67	118,330,880,774.07
Heating power	7,298,523,102.89	8,305,130,004.48	8,411,398,078.42	9,047,694,650.41
Coal	5,407,257,454.61	3,712,268,055.89	5,967,469,569.91	4,367,216,390.51
Aluminum	57,069,780,852.41	53,427,679,306.92	36,984,246,838.30	34,054,504,837.14
Others	20,599,562,857.38	15,805,068,481.58	22,725,848,214.92	14,184,919,995.70
2. Sub-total of other business	5,167,667,510.95	2,858,144,996.46	4,651,662,238.42	2,897,218,194.34
Sale of raw materials	297,799,090.98	223,476,973.99	260,339,451.61	195,599,638.92
Transport business	39,129,744.00	48,627,253.56	46,807,673.92	56,534,703.08
Processing and repair	31,973,559.79	47,292,585.82	36,164,537.05	30,107,439.83
Lease of fixed assets	286,567,708.92	127,554,489.47	327,259,131.30	197,945,855.91
Commissioned operating by power generation	299,191,686.26	97,043,481.86	161,162,980.03	90,701,857.13
Staff training	102,728,705.67	127,235,263.96	82,629,428.14	97,961,026.87
Transfer of power	667,844,531.24	138,167,071.86	406,795,254.16	220,840,939.63
Garbage removal subsidy income	122,771,193.84	1,062,462.06	115,021,601.83	
Others	3,319,661,290.25	2,047,685,413.88	3,215,482,180.38	2,007,526,732.97
Total	272,239,922,635.59	213,291,430,221.38	226,501,147,148.64	182,882,434,842.17

Top 8 incomes recognized in the current period from the construction contract (monetary unit: RMB'0,000):

Item	Total contract amount	Total contract cost	Percentage of completion (%)	Contract income accumulatively recognized	Contract cost accumulatively recognized	Accumulatively recognized gross profit ("-" for loss)	Amount already settled	Cumulative amount collected	Contract income recognized in the current period	Contract cost recognized in the current period
1. Sanmen Nuclear Power Phase II	1,514,639.00	1,322,200.00	40.00	546,806.64	523,840.76	22,965.88	471,848.15	470,818.16	139,558.24	136,115.97
2. Hunutelu project	265,814.88	253,414.88	16.26	43,217.04	41,199.42	2,017.62	48,749.45	57,223.43	33,456.18	31,438.56
3. Phase-I Yining West District Integrated Smart Energy Project	26,097.51	22,189.29	73.14	19,086.94	16,228.58	2,858.36	21,096.28	21,386.13	19,086.94	16,228.58
4. Sanmen Nuclear Power Phase I	1,206,300.00	1,206,600.00	100.00	917,208.22	847,732.03	69,476.18	952,381.72	1,114,100.70	14,796.94	14,794.44
5. Lufeng Nuclear Power Phase I	1,560,568.00	1,362,320.00	19.00	268,039.35	252,681.75	15,357.60	344,434.78	493,977.74	4,703.69	4,506.13
6. General contracting project of Weichuan Wind Power	7,783.02	7,582.87	44.57	3,469.07	3,379.86	89.21	3,810.72	3,722.91	3,469.07	3,379.86
7. Atlas Project	414,750.32	351,436.04	100.00	414,750.32	351,436.04	63,314.28	414,660.24	465,394.90	2,935.94	-6,958.53
8. 10MW Photovoltaic Project in Selangor, Malaysia	7,567.00		24.62	1,863.33	1,863.33				1,863.33	1,863.33

8.63 Selling expenses, general and administrative expenses, R&D costs and financial expenses

8.63.1 Selling expenses

Item	Year 2019	Year 2018
Employees' compensation	208,483,376.61	196,741,169.45
Transportation cost	173,971,987.17	291,356,231.03
Sales service fee	55,687,476.11	66,158,189.61
Travel expenses	45,294,572.39	42,620,313.48
Depreciation costs	37,157,500.33	36,625,260.22
Packing expenses	26,314,271.47	21,427,532.48
Rental fees	22,023,050.50	18,458,316.11
Repair expense	14,299,223.39	32,832,075.85
Advertising and promotion expenses	13,450,021.95	5,861,952.23
Entertainment expense	13,384,998.40	15,226,696.31
Terminal charges	13,165,143.46	12,630,653.17
Office fee	10,465,325.88	6,372,924.63
Materials and low-value consumables	7,135,043.94	4,367,339.84
Operating expenses	4,861,639.66	4,890,811.41
Cost of meetings	3,182,535.66	1,322,796.95
Handling charges for commission sale	2,848,150.94	2,880,547.17
Storage charges	2,335,604.03	1,286,391.05
Insurance premium	2,291,995.99	7,167,830.92
Exhibition expenses	1,214,087.81	917,451.68
Others	50,354,723.59	60,076,009.20
Total	707,920,729.28	829,220,492.79

8.63.2 Administrative expenses

Item	Year 2019	Year 2018
Employees' compensation	3,942,083,878.69	3,990,270,642.05
Consulting fees	518,575,610.97	402,692,854.04
Depreciation costs	415,733,889.32	356,272,825.60
Rental fees	320,310,500.79	283,110,844.38
Amortization of intangible assets	284,894,034.57	207,193,546.18
Property management fees	230,582,773.39	230,335,866.43
Travel expenses	226,614,580.34	223,130,306.74
Office fee	128,440,739.89	128,927,130.36
Advertising and promotion expenses	94,895,576.69	48,438,391.04
Audit fee	86,517,211.39	85,108,532.20
Entertainment expense	78,200,656.27	69,342,636.27
Vehicle use fees	70,960,891.13	73,162,353.98
Repair expense	64,416,389.42	44,482,259.12
Lawyer fee	61,667,493.05	56,283,093.96
Utilities	56,360,826.80	59,088,651.49
Insurance premium	53,113,665.17	59,396,115.00
Technology transfer fee	51,804,616.97	41,979,824.73
Funds for Party construction	30,513,055.53	28,846,254.11
Amortization of low-cost consumables	24,039,472.02	24,319,484.23
Foreign affairs fee	18,817,919.97	30,060,894.44
Cost of meetings	15,849,152.25	16,172,686.23

Item	Year 2019	Year 2018
Amortization of long-term deferred expenses	15,413,705.07	19,701,377.07
Others	349,741,518.12	267,968,790.02
Total	7,139,548,157.81	6,746,285,359.67

8.63.3 R&D costs

Item	Year 2019	Year 2018
Employees' compensation	703,834,286.38	396,740,059.08
Development fee for entrustment	144,760,386.96	37,907,604.53
Depreciation and amortization expenses	73,642,361.10	44,991,962.42
On-site test fee for exploration and development technology	53,892,772.92	38,488,448.36
Materials expenses	24,336,804.01	12,657,860.22
New process specification development fee	22,795,000.00	16,279,440.32
Maintenance expenses of researched and developed fixed assets	18,592,357.19	1,768,821.87
Testing and processing fees	4,136,858.27	2,679,905.39
Others	487,846,050.54	233,987,624.88
Total	1,533,836,877.37	785,501,727.07

8.63.4 Financial expenses

Category	Year 2019	Year 2018
Interest expense	27,517,197,387.44	25,616,221,503.77
Less: interest income	286,266,382.90	430,281,777.06
Net losses from foreign exchange ("-" for net gains)	61,458,460.23	80,557,327.95
Including: foreign exchange gains	631,650,531.93	612,120,265.36
Exchange losses	693,108,992.16	692,677,593.31
Others	579,847,107.81	275,782,594.10
Total	27,872,236,572.58	25,542,279,648.76

8.64 Other income

Item	Year 2019	Year 2018
Refunds of Value-added Tax	240,763,989.12	218,279,156.19
Return of handling charges related to individual income tax	5,129,135.41	8,571,494.64
Deducted input tax based on the input tax deductible in the current period	39,935,360.67	
Others	1,562,085,464.01	1,328,653,006.25
Total	1,847,913,949.21	1,555,503,657.08

Remark: Other items are mainly RMB 484,808,820.52 of the carry-over amount of deferred income related to major special projects of the civil products, RMB 98,647,756.63 of heating subsidies, RMB 60,681,271.37 of subsidies for stabilization of posts and RMB 56,383,426.88 of gas demonstration mines.

8.65 Investment incomes

Source for investment income	Year 2019	Year 2018
Long-term equity investment income calculated under equity method	2,310,519,735.44	1,897,166,045.01
Investment income from disposal of long-term equity investment	1,561,777,287.26	2,054,079,256.22
Investment income from financial assets measured at fair value through current profit or loss incurred during the holding period	13,090,307.62	1,695,939.34
Investment income from disposal of financial assets measured at fair value through current profit or loss	34,047,415.41	9,275,388.78
Investment income during holding the held-to-maturity investments	177,358,259.08	48,294,760.88
Investment income from disposal of held-to-maturity investments	2,340,247.81	16,555,149.64
Investment Income Obtained from financial assets available-for-sale	457,444,815.50	789,414,859.99
Investment income obtained from disposal of financial assets available-for-sale	177,023.28	45,826,027.51
Interest income during the holding of debt investment (subject to new standards)	516,628,831.09	
Interest income during the holding of other debt investment (subject to new standards)	1,780,931.52	
Income from disposal of debt investment (subject to new standards)	1,215,780.82	
Dividend income obtained during the holding of other equity instruments (subject to new standards)	45,358,813.79	21,011,213.34
Others	655,822,673.96	528,585,593.65
Total	5,777,562,122.58	5,411,904,234.36

There were no significant restrictions on the remittance back of the investment income of the Company.

8.66 Gains from changes in fair value

Source of gains from changes in fair value	Year 2019	Year 2018
Financial assets held for trading (subject to new standards)	-115,835,658.22	-1,943,483.37
Financial assets measured at fair values and with their variances included in current profit or loss (subject to old standards)	14,751,339.21	223,697,211.33
Financial liabilities held for trading (subject to new standards)	546,305.00	
Fixed assets converted into investment property	-88,710.62	
Derivative financial assets	-1,517,428.89	1,310,717.49
Investment property measured at fair value	163,182,030.92	3,799,895.03
Other non-current financial assets	-7,902,620.83	
Financial liabilities measured at fair values and with their variances included into current profit or loss (subject to old standards)		-5,000,000.00
Derivative financial liabilities		440,083.97
Total	53,135,256.57	222,304,424.45

8.67 Credit impairment loss

Item	Year 2019	Year 2018
Bad debt losses	183,220,716.54	
Losses from the credit impairment of creditors' investment	-58,267,941.46	
Others	21,883,352.54	
Total	146,836,127.62	

8.68 Losses from asset impairment

Item	Year 2019	Year 2018
Bad debt losses (subject to old financial instrument standards)	485,389,466.13	511,083,766.01
Losses from inventory depreciation	675,454,583.00	224,448,856.57
Impairment loss for available-for-sale financial assets (subject to old financial instrument standards)	581,495,218.12	63,261,591.45
Losses from impairment of long-term equity investments	1,123,189,492.56	
Losses from impairment of fixed assets	2,175,446,821.20	336,700,219.79
Losses from impairment of project materials	18,834,053.69	19,120,815.10
Losses from impairment of construction in process	1,329,676,768.81	523,429,283.34
Losses on impairment of intangible assets	3,676,225.42	1,976,790.13
Losses from the impairment of goodwill	820,983,404.11	699,933,365.49
Others	901,348,179.18	-13,134,394.09
Total	8,115,494,212.22	2,366,820,293.79

8.69 Incomes from disposal of assets

Item	Year 2019	Year 2018	Amount included in non-recurring gains and losses in 2019
Gains or losses from the disposal recognized at the time of selling non-current assets (except for financial instruments, long-term equity investments and investment property) classified as held for sale	650,627.81	85,788,872.24	650,627.81
Gains or losses from the disposal of non-current assets not held for sale	305,362,045.77	165,939,895.89	305,362,045.77
Gains or losses on disposal of non-current assets	25,481,111.13		25,481,111.13
Total	331,493,784.71	251,728,768.13	331,493,784.71

8.70 Non-operating revenue

Item	Year 2019	Year 2018	Amount included in non-recurring gains and losses in 2019
Gains on inventory profit	11,040,976.11	15,966,282.57	11,040,976.11
Gains from the scrapping and damage of non-current assets	15,643,510.67	23,998,450.49	15,643,510.67
Gains from recipient	150,531,471.12	9,100,460.80	150,531,471.12
Government subsidies (subsidy income) (excluding items included in other income)	208,446,392.89	337,450,665.76	208,446,392.89
Net amercement income	24,400,824.17	35,033,977.31	24,400,824.17
Income from liquidated damages	41,869,803.90	39,546,208.86	41,869,803.90
Others	926,121,278.90	971,889,790.98	926,121,278.90
Total	1,378,054,257.76	1,432,985,836.77	1,378,054,257.76

Breakdown of government subsidies:

Item	Year 2019	Year 2018
Energy-saving and environmental protection subsidy income	11,734,524.53	22,079,657.56
Subsidy income from the shutdown of Small thermal power	1,740,000.00	35,950,000.00
Other government subsidy income	194,971,868.36	279,421,008.20
Total	208,446,392.89	337,450,665.76

Remark: Among the other government subsidies, the subsidies for stabilization of posts was RMB 25,679,674.50; subsidy funds for zombie enterprises were RMB 36,190,026.25, and various government support and incentive funds were RMB 71,449,319.40.

8.71 Non-operating expenditures

Item	Year 2019	Year 2018	Amount included in non-recurring gains and losses in 2019
Inventory losses	6,890.47	414,970.30	6,890.47
Losses on retirement and damage of non-current assets	426,256,789.56	300,055,111.14	426,256,789.56
Penalty costs	251,816,868.41	78,473,692.97	251,816,868.41
Overdue fines and liquidated damages	48,328,617.53	81,789,330.67	48,328,617.53
Donation outlay	88,256,640.38	57,345,139.43	88,256,640.38
Abnormal loss	777,396.33	2,138,332.25	777,396.33
Expenditure on returned government grants	30,359.00	1,916,000.00	30,359.00
Expected losses on pending	7,908,669.49	3,956,833.39	7,908,669.49

Item	Year 2019	Year 2018	Amount included in non-recurring gains and losses in 2019
action			
Others	1,350,315,774.90	89,887,552.64	1,350,315,774.90
Total	2,173,698,006.07	615,976,962.79	2,173,698,006.07

8.72 Income taxes

8.72.1 Table of income taxes

Item	Year 2019	Year 2018
Income tax in the current period	5,926,247,497.18	4,740,938,626.56
Deferred income tax adjustment	-565,606,976.08	-645,906,315.62
Total	5,360,640,521.10	4,095,032,310.94

8.72.2 Accounting profit and income tax expense adjustment process

Item	Year 2019
Total profits	15,901,428,736.49
Income tax expense calculated at statutory/applicable tax rate	3,975,357,184.12
Influence from application of different tax rate to subsidiaries	-173,540,929.57
Influence from adjustment of income tax in the previous period	-60,047,473.50
Influence from non-taxable income	-2,353,141,313.63
Influence of nondeductible costs, expenses and losses	2,286,461,558.53
Influence from using the deductible losses of unrecognized deferred tax assets	-2,697,091,662.03
Influence from deductible temporary difference or deductible losses of deferred income tax assets unrecognized in the current period	1,948,579,976.34
Others	2,434,063,180.84
Income tax expenses	5,360,640,521.10

8.73 Other comprehensive income attributable to owners of the parent company

8.73.1 Items of other comprehensive income as well as their income tax influence and transfer to profit or loss

Item	Year 2019			Year 2018		
	Amount before tax	Income tax	Net after tax	Amount before tax	Income tax	Net after tax
I. Other comprehensive incomes that cannot be re-classified into profit or loss	-153,012,775.77	4,160,915.81	-157,173,691.58	-124,940,577.20	-94,455,962.91	-30,484,614.29
1. Re-measurement of change in defined benefits plan						
2. Other comprehensive incomes that cannot be transferred into profit or loss by equity approach	-275,174.68		-275,174.68	745,654.01		745,654.01
3. Changes in fair value of investments in other equity instruments (subject to new standards)	-152,737,601.09	4,160,915.81	-156,898,516.90	-125,686,231.21	-94,455,962.91	-31,230,268.30
4. Changes in the fair value of the enterprise's own credit risk (subject to new standards)						
5. Others						
II. Other comprehensive income that will be reclassified into profit or loss	979,943,624.01	213,053,873.96	766,889,750.05	-913,256,974.92	78,108,160.25	-991,365,135.17

Item	Year 2019			Year 2018		
	Amount before tax	Income tax	Net after tax	Amount before tax	Income tax	Net after tax
1. Other comprehensive incomes that can be transferred into profit or loss by equity approach	-40,732,441.72	1,244,890.89	-41,977,332.61	27,826,777.69		27,826,777.69
Less: net amount that is included into other comprehensive income and transferred into the current profit or loss						
Sub-total	-40,732,441.72	1,244,890.89	-41,977,332.61	27,826,777.69		27,826,777.69
2. Changes in fair value of other debt investments (subject to new standards)						
Less: amount included in other comprehensive income in prior period and transferred in the current profit or loss						
Sub-total						
3. Profit or loss from change of fair value of financial assets available-for-sale (subject to old standards)	112,488,496.70	3,519,793.27	108,968,703.43	-35,906,061.50	71,966,536.43	-107,872,597.93

Item	Year 2019			Year 2018		
	Amount before tax	Income tax	Net after tax	Amount before tax	Income tax	Net after tax
Less: amount included in other comprehensive income in prior period and transferred in the current profit or loss				19,060,185.52	3,910,268.21	15,149,917.31
Sub-total	112,488,496.70	3,519,793.27	108,968,703.43	-54,966,247.02	68,056,268.22	-123,022,515.24
4. The amount of financial assets reclassified and included in other comprehensive income (subject to new standards)						
Less: amount included in other comprehensive income in prior period and transferred in the current profit or loss						
Sub-total						
5. Profit or loss arising from reclassification of held-to-maturity investments as financial assets available for sale (subject to old standards)	197,163,741.27		197,163,741.27	-583,372.00		-583,372.00
Less: amount						

Item	Year 2019			Year 2018		
	Amount before tax	Income tax	Net after tax	Amount before tax	Income tax	Net after tax
included in other comprehensive income in prior period and transferred in the current profit or loss						
Sub-total	197,163,741.27		197,163,741.27	-583,372.00		-583,372.00
6. Credit impairment provision for other debt investment (subject to new standards)						
Less: amount included in other comprehensive income in prior period and transferred in the current profit or loss						
Sub-total						
7. Cash flow hedge reserve (effective part of profit or loss from hedging of cash flow)	-212,179,398.28	-3,233,038.77	-208,946,359.51	-28,764,228.19	10,051,892.03	-38,816,120.22
Less: amount included in other comprehensive income in prior period and transferred in the current profit or loss						

Item	Year 2019			Year 2018		
	Amount before tax	Income tax	Net after tax	Amount before tax	Income tax	Net after tax
Adjustment to the initially recognized amount transferred to hedged item						
Sub-total	-212,179,398.28	-3,233,038.77	-208,946,359.51	-28,764,228.19	10,051,892.03	-38,816,120.22
8. Foreign currency translation differences	-7,300,416.23		-7,300,416.23	-856,769,905.40		-856,769,905.40
Less: amount included in other comprehensive income in prior period and transferred in the current profit or loss	-80,161.93		-80,161.93			
Sub-total	-7,220,254.30		-7,220,254.30	-856,769,905.40		-856,769,905.40
9. Others	930,423,480.34	211,522,228.57	718,901,251.77			
Less: amount included in other comprehensive income in prior period and transferred in the current profit or loss						
Sub-total	930,423,480.34	211,522,228.57	718,901,251.77			
III. Total of other comprehensive income	826,930,848.24	217,214,789.77	609,716,058.47	-1,038,197,552.12	-16,347,802.66	-1,021,849,749.46

8.73.2 Adjusting information of various items in other comprehensive income

Item	Re-measurement of change in defined benefits plan	Other comprehensive incomes that cannot be re-classified into profit or loss by equity method	Changes in fair value of investments in other equity instruments	Changes in the fair value of the enterprise's own credit risk	Other comprehensive incomes that can be transferred into profit or loss by equity approach	Changes in fair value of other debt investments	Profit or loss from change of fair value of financial assets available-for-sale	The amount of financial assets reclassified and included in other comprehensive income	Profit or loss arising from reclassification of held-to-maturity investments as financial assets available for sale	Credit impairment provision for other debt investment	Cash flow hedge reserve (effective part of profit or loss from hedging of cash flow)	Foreign currency translation differences	Others	Sub-total
I. Balance as at beginning of last year		-2,453,170.55	197,682,763.54		18,165,298.56		-57,416,127.68				107,392,069.01	-100,149,395.48		163,221,437.40
II. Increases/ decreases in the last year ("-" for decreases)		745,654.01	-31,230,268.30		27,826,777.69		-123,022,515.24		-583,372.00		-38,816,120.22	-856,769,905.40		-1,021,849,749.46
III. Balance as at the beginning of the year		-1,707,516.54	166,452,495.24		45,992,076.25		-180,438,642.92		-583,372.00		68,575,948.79	-956,919,300.88		-858,628,312.06
IV. Increases/ decreases in the current year ("-" for decreases)		-275,174.68	-156,898,516.90		-41,977,332.61		108,968,703.43		197,163,741.27		-208,946,359.51	-7,220,254.30	718,901,251.77	609,716,058.47
V. Balance as at the end of the current year		-1,982,691.22	9,553,978.34		4,014,743.64		-71,469,939.48		196,580,369.27		-140,370,410.72	-964,139,555.18	718,901,251.77	-248,912,253.58

8.74 Borrowing costs

Item	Capitalization rate in 2019 (%)	Amount of borrowing costs capitalized in 2019
Haiyang Nuclear Power Phase II Project	4.27	441,354,735.25
National Nuclear PWR Demonstration Project	3.74	347,085,563.36
Yangqu Hydropower Station	4.50	296,904,084.80
State Power Investment Corporation Qinyang 2 * 1000MW Project	4.54	228,937,229.98
No. 1 and No. 2 Units of Wucaiwan North No. 2 Power Plant	6.20	177,839,083.85
Myitsone Project	4.55	148,535,777.20
China Power Hubu -Power Plant Project	4.10	139,426,797.17
Pengze Nuclear Power Project	4.82	116,251,803.39
Fenyi 2 * 660MW Unit Project	4.22	82,617,459.81
Zhoukou Gas-fired Thermal Power 2 × 300MW Gas-Steam Combined Cycle Thermal Power Plant Project	4.43	72,102,640.10
Dabie Mountain Phase II Project	4.37	63,909,665.43
2 * 1000MW load the large generating set and shut down the small generating set' project	4.90	62,356,487.48
Self-provided power plant project	4.18	53,088,894.45
Guangxi Bailong Nuclear Power Project	4.60	51,358,731.88
Mulei Laojun Temple 49.5MW * 2 Wind Power Project	4.90	38,012,504.37
Lisha Island Gas Turbine Project	4.10	32,521,108.27
Phase I Project of High-precision Aluminum Strip	5.39	31,011,396.16
Summer Hamu Project	4.22	29,314,826.40
Lianjiang Nuclear Power	4.72	28,505,498.62
Phoenix Lake Shift Dormitory	5.20	26,025,250.70
Jingmen High-tech Zone Natural Gas Polygeneration Energy Project	4.90	20,375,991.90
400MWp Affordable Grid-connected Photovoltaic Power Generation Project in Shengping Town, Anda City	4.43	19,392,760.42
0.4 Million Kilowatts of Wind Power in Hainan	4.50	19,220,264.98
Jinzhou Port Coal Terminal Phase I Project	5.24	19,057,511.11
Qingyun Phase II Project	4.90	18,214,046.88
Shanghe Phase I 100MW Wind Power Project	4.90	17,076,664.27
Haiyang Nuclear Power Phase I Project	4.27	16,839,151.47

Item	Capitalization rate in 2019 (%)	Amount of borrowing costs capitalized in 2019
Lanzhou New District Thermal Power Project	4.50	16,749,299.68
Bazhou Environmental Protection Household Waste Incineration Project	4.33	16,252,113.18
Boai Wind Power Project	4.90	14,987,375.45
Dashuishan Project of Xingguo Jidian New Energy Power Generation Co., Ltd.	4.39	14,830,970.14
Zanatas Wind Power 100MW Wind Power Project	4.10	14,224,230.05
Renhuai Environmental Protection Project	4.56	14,018,284.55
100,000-kw Photovoltaic Project of Baotou Leader	4.90	13,472,085.35
Dabancheng Wind Power Phase II	4.90	13,217,535.50
Shawan Smart Energy Phase I	4.90	13,034,176.95
Qili Binjiang Real Estate Development Project	4.93	12,999,965.05
Dahuaishan Wind Power Project Phase I	4.41	12,537,839.50
Dingnanyun Taishan Wind Power Project	4.90	12,341,259.77
Wanan Gaoshanzhang Wind Power Project	4.53	12,266,074.68
Phase I 99MW Project of Fanzhi County 200MW Wind Power Clean Energy Heating Project	4.99	12,098,519.55
Deyang Waste Incineration Power Generation Project	2.15	11,623,877.40
Pingdingshan Domestic Waste Incineration Cogeneration Project	4.90	11,134,800.76
Jinzhou Port - Baiyinhua Railway Capacity Expansion Project	4.27	11,123,504.85
Mulei Wind Power Phase IV	4.90	10,946,693.00
Haixing Leader Project	4.41	10,597,082.47
Datong Photovoltaic Yaerya Project Investment	4.41	10,518,269.43

8.75 Foreign currency translation

1 The exchange difference included in the current profit or loss was RMB 62,524,843.55.

2 The influence from the disposal of overseas business on converted difference in foreign currency statements was RMB -7,220,254.30.

8.76 Lease

8.76.1 Information relating to financing leases:

(1) Finance lease lessor

Remaining lease term	Minimum lease payments
Within 1 year (inclusive)	10,428,785,426.34
1-2 years (inclusive)	7,608,957,355.29

Remaining lease term	Minimum lease payments
2-3 years (inclusive)	5,901,896,107.46
Over 3 years	11,722,202,795.39
Total	35,661,841,684.48

The balance of unrealized financing income as at December 31, 2019 amounted to RMB 6,592,027,510.06.

8.76.2 Information relating to acceptance of financing lease

(1) Original price, accumulated depreciation amount and cumulative amount of impairment provision of various leased fixed assets at year beginning and year end

Category of fixed assets	Original value of fixed assets at the beginning of the year	Original value of fixed assets at the end of the period	Accumulated depreciation	Accumulated amount of impairment provision
Machinery equipment	60,704,722,812.73	51,276,244,109.79	14,606,098,086.82	
Total	60,704,722,812.73	51,276,244,109.79	14,606,098,086.82	

(2) The minimum lease payments to be made for the coming year:

Remaining lease term	Minimum lease payments
Within 1 year (inclusive)	9,440,502,233.55
1-2 years (inclusive)	8,315,441,553.17
2-3 years (inclusive)	4,063,892,009.79
Over 3 years	5,884,584,080.07
Total	27,704,419,876.58

Balance of unrecognized financing charges as at December 31, 2019 was RMB 3,663,729,047.81.

8.76.3 Information disclosure of lessees under the New Standards for Leases

(1) Lessee information

Item	Amount
Interest expense on lease liability	326,160,389.79
Short-term lease expenses included in the current profit or loss	6,776,262.90
Low-value asset lease fees	851,744.96
Variable lease payments not included in the measurement of lease liabilities	
Revenue from subletting right-of-use assets	
Total cash outflows related to leases	1,374,863,197.93
Related profit or loss from sale and leaseback transactions	
Others	

8.77 Segment information (monetary unit: RMB'0,000)

Item	Electric power		Heating power		Coal		Aluminum	
	Year 2019	Year 2018	Year 2019	Year 2018	Year 2019	Year 2018	Year 2019	Year 2018
I. Operating income	19,536,732.38	16,785,198.44	982,798.72	903,448.33	1,432,921.92	1,332,551.16	8,688,605.91	6,633,580.16
Including: income from foreign transactions	17,669,713.09	14,776,052.22	729,852.31	841,139.81	540,725.75	596,746.96	5,706,978.09	3,698,424.68
Income from inter-segment transactions	1,867,019.29	2,009,146.21	252,946.41	62,308.53	892,196.17	735,804.20	2,981,627.83	2,935,155.48
II. Income from Investment in associates and joint ventures	217,983.25	192,631.87	477.64		15,086.28	15,611.63	-3,823.87	7,486.37
III. Asset impairment losses	-313,826.10	-123,262.65	-30,358.17	-50,211.77	-653.68	-1,527.22	-85,398.75	-19,216.53
IV. Credit impairment loss (applicable to new standards)	-3,496.52		-15.44		320.81		-378.49	
V. Depreciation and amortization expenses	3,144,458.94	2,823,854.36	69,563.17	67,281.35	86,578.44	85,845.21	228,841.00	234,653.77
VI. Total profit	2,570,194.56	1,603,696.65	-151,700.84	-162,006.14	335,844.94	304,964.17	40,345.68	-62,562.69
VII. Income	362,050.03	256,649.06	6,506.69	3,939.21	65,530.61	56,173.84	17,019.62	-37,668.35

Item	Electric power		Heating power		Coal		Aluminum	
	Year 2019	Year 2018	Year 2019	Year 2018	Year 2019	Year 2018	Year 2019	Year 2018
tax expenses								
VIII. Net profit	2,208,144.52	1,347,047.59	-158,207.54	-165,945.35	270,314.32	248,790.33	23,326.06	-24,894.34
IX. Total assets	147,599,112.88	137,410,051.65	2,556,747.36	1,772,628.44	2,922,944.00	3,074,362.50	6,407,120.47	5,949,035.04
X. Total Liabilities	89,682,755.87	86,488,649.14	1,495,324.15	1,342,196.66	1,971,495.69	2,297,807.73	5,051,360.72	4,485,111.68
XI. Other significant non-cash items	23,250.46	176,532.34	398.40	196.84	2,289.24	-603.24	-133.84	1,492.35
Including: non-cash items other than depreciation and amortization costs	34,808.08	35,444.18	398.40	196.84	2,289.24	-603.24		
Increases in long-term equity investments in associates and joint ventures under equity method	-11,557.62	141,088.16					-133.84	1,492.35

(Continued)

Item	Others		Offsetting		Total	
	Year 2019	Year 2018	Year 2019	Year 2018	Year 2019	Year 2018
I. Operating income	6,120,947.71	6,095,790.26	-9,538,014.39	-9,100,453.63	27,223,992.26	22,650,114.71
Including: income from foreign transactions	2,576,723.04	2,737,751.05			27,223,992.26	22,650,114.71
Income from inter-segment transactions	3,544,224.68	3,358,039.21	-9,538,014.39	-9,100,453.63		
II. Income from Investment in associates and joint ventures	-45,826.23	217,189.45	47,154.91	-243,202.71	231,051.97	189,716.60
III. Asset impairment losses	-271,170.02	-57,748.44	-110,142.71	15,284.58	-811,549.42	-236,682.03
IV. Credit impairment loss (applicable to new standards)	-52,705.62		41,591.66		-14,683.61	
V. Depreciation and amortization expenses	180,427.66	160,700.09	0.03	0.40	3,709,869.24	3,372,335.17
VI. Total profit	342,081.71	579,766.30	-1,546,623.17	-1,153,380.00	1,590,126.33	1,110,478.29
VII. Income tax expenses	104,189.23	147,048.61	-19,215.59	-16,639.15	536,064.05	409,503.23
VIII. Net profit	237,892.48	432,717.68	-1,527,407.58	-1,136,740.85	1,054,062.28	700,975.06
IX. Total assets	32,853,363.32	30,605,204.89	-72,905,337.69	-70,614,140.04	119,433,950.34	108,197,140.44
X. Total Liabilities	23,670,282.40	21,199,787.41	-31,432,031.25	-30,995,903.95	90,439,187.57	84,817,648.67
XI. Other significant non-cash items	31,247.37	5,781.83	-6,098.27	286,720.36	50,953.36	470,120.48
Including: non-cash items other than depreciation and amortization costs	8,144.89	73.02			45,640.61	35,110.80
Increases in long-term equity investments in associates and joint ventures under equity method	23,102.48	5,708.81	-91.43		5,312.75	435,009.68

8.77.1 Revenue from external transactions by product or business segment

Item	Year 2019	Year 2018
Electric power	176,697,130,857.35	147,760,522,208.67
Heating power	7,298,523,102.89	8,411,398,078.42
Coal	5,407,257,454.61	5,967,469,569.91
Aluminum	57,069,780,852.41	36,984,246,838.30
Others	25,767,230,368.33	27,377,510,453.34
Sub-total	272,239,922,635.59	226,501,147,148.64

8.78 Consolidated Statement of Cash Flows

8.78.1 Information on adjusting net profit to cash flows from operating activities

Supplementary Information	Year 2019	Year 2018
1. Net profit adjusted to cash flows from operating activities:		
Net profit	10,540,622,796.28	7,009,750,616.33
Plus: preparations for asset impairment	8,115,494,212.22	2,366,820,293.79
Credit impairment loss	146,836,127.62	
Depreciation of fixed assets, depletion of oil and gas assets, depreciation of productive biological assets	36,979,409,806.28	34,221,646,130.65
Amortization of intangible assets	1,377,767,537.36	1,280,664,579.64
Amortization of long-term deferred expenses	613,831,825.63	451,850,669.66
Loss from disposal of fixed assets, intangible assets and other long-term assets(- for gains)	-331,493,784.71	-251,728,768.13
Losses from write-off of fixed assets (“-“ for gains)	410,613,278.89	297,563,884.69
Losses from changes in fair value ("-" for gains)	-53,135,256.57	-222,304,424.45
Financial expenses ("-" for gains)	28,158,502,955.48	21,701,416,231.03
Investment loss ("-" for gains)	-5,777,562,122.58	-5,411,904,234.36
Decrease in deferred income tax assets ("-" for increase)	-774,144,395.84	-984,297,222.35
Increases in deferred income tax liabilities (“-” for decreases)	326,143,887.64	333,760,303.91
Decrease in inventories ("-" for increase)	-438,020,431.80	-3,285,489,249.70
Decreases in operating receivables (“-” for increases)	-37,897,870,479.41	-13,807,375,134.68
Increases in operating payables ("-" for decreases)	4,066,656,765.06	-3,583,326,642.51
Others	-4,056,742,789.41	-22,074,413.43
Net cash flows from operating activities	41,406,909,932.14	40,094,972,620.09
2. Significant investment and financing activities not involving cash deposit and withdrawal:		
Conversion of debt into capital		
Convertible debenture due within one year		
Fixed assets acquired under	51,276,244,109.79	60,704,722,812.73

Supplementary Information	Year 2019	Year 2018
financial leases		
3. Net change in cash and cash equivalents:		
Ending balance of cash	24,193,262,514.89	19,080,581,047.91
Less: beginning balance of cash	19,080,581,047.91	22,071,496,389.36
Plus: Ending balance of cash and cash equivalents		
Less: beginning balance of cash equivalents		
Net increase in cash and cash equivalents	5,112,681,466.98	-2,990,915,341.45

8.78.2 Net cash from acquisition and disposal of subsidiaries in 2019

Item	Amount
I. Cash or cash equivalents paid for business combinations occurred in the current year	1,102,597,170.71
Less: cash and cash equivalents held for purchase of subsidiaries	285,127,892.68
Plus: cash or cash equivalents paid in the current period for business combination in the previous current	
Net cash paid for the acquisition of subsidiaries	817,469,278.03
II. Cash and cash equivalents received for disposal of subsidiaries in the current period	3,979,053,413.15
Less: cash and cash equivalents held by subsidiaries on the date of losing the control right	1,769,954.24
Plus: cash or cash equivalents from disposal of subsidiaries in prior periods but received in the current period	
Net cash received for disposal of subsidiaries	3,977,283,458.91

8.78.3 Breakdown of cash and cash equivalents

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
I. Cash	24,193,262,514.89	19,080,581,047.91
Including: cash on hand	2,186,957.91	1,824,420.91
Unrestricted bank deposits	22,185,785,586.40	18,046,194,242.72
Unrestricted other monetary funds	2,005,289,970.58	1,032,562,384.28
Deposits with central bank available for payments		
Deposits in banks and other financial institutions		
Borrowings from other banks		
II. Cash equivalent		
Including: bond investment due within three months		
III. Balance of cash and cash equivalents at the end of the period	24,193,262,514.89	19,080,581,047.91
Including: cash and cash equivalents with restricted use right by parent company or subsidiaries of the Group	179,760,109.73	40,116,937.50

8.79 Foreign currency monetary item

Item	Balance in foreign currency as at December 31, 2019	Rate of translation	RMB balance translated as at December 31, 2019
Monetary funds			3,729,476,450.28
Including: USD	300,848,602.98	6.9762	2,098,780,024.10
HKD	324,412,385.94	0.8958	290,602,127.08
JPY	3,310,631,074.49	0.0641	212,165,103.04
EUR	78,302,802.97	7.8155	611,975,556.64
GBP	0.94	9.1501	8.60
AUD	102,528,353.06	4.8843	500,779,234.83
SGD	2,932,873.85	5.1739	15,174,395.99
Accounts receivable			803,338,080.95
Including: USD	84,093,915.99	6.9762	586,655,976.73
EUR	27,724,663.07	7.8155	216,682,104.22
Short-term borrowings			12,763,861,891.33
Including: USD	1,726,905,463.05	6.9762	12,047,237,891.33
HKD	800,000,000.00	0.8958	716,624,000.00
Long-term borrowings			10,594,009,943.13
Including: USD	1,441,542,000.00	6.9762	10,056,485,300.40
EUR	68,776,744.00	7.8155	537,524,642.73
Bonds payable			18,805,500,000.00
Including: USD	2,500,000,000.00	6.9762	17,440,500,000.00

8.80 Assets with restrictions on the ownership or right of use

Item	Book value as at December 31, 2019	Reason for restriction
Monetary funds	4,036,154,666.81	Margin, time deposit for guarantee, central bank reserve
Notes receivable	398,726,829.90	Pledge loan
Accounts receivable	52,674,770,707.02	Pledge loan
Inventories	1,227,682,918.99	Assets used for guarantee
Long-term receivables	13,454,811,155.04	Pledge loan
Fixed assets	27,340,119,511.88	Assets used for guarantee
Fixed assets	36,670,146,022.97	Assets acquired under financing leases
Intangible assets	710,923,940.18	Assets used for guarantee
Construction in progress	3,660,967,077.95	Assets used for guarantee
Right-of-use asset	1,595,689,139.23	Assets acquired under financing leases
Total	141,769,991,969.97	

9. Contingencies

9.1 Contingent liabilities

9.1.1 Contingent liabilities arising from pending litigation or arbitration

(1) On June 4, 2010, Sichuan Guanzi Daoqiao Engineering Co., Ltd. and Xingding Company signed a contract on the construction of the No. 5 Cave of Xili Hydropower Station (subject matter amount of RMB 31.7 million). During the construction period, the construction was fully stopped for various reasons, and Xingding Company negotiated with Guanzi Daoqiao on the settlement of related expenses with reference to the judgment standard for No. 1 Cave of Xili Hydropower Station. Both parties failed to reach an agreement, and Guanzi Daoqiao filed a lawsuit with the Intermediate People's Court of Aba Prefecture. As of December 31, 2019, the case entered the first-instance appraisal process, and the specific loss amount will be at the discretion of the judge.

(2) Xingding Company consulted with Daxinan Company on the settlement of related expenses with regard to the construction contract with reference to the judgment standard for No. 1 Cave of Xili Hydropower Station. Both parties failed to reach an agreement. On July 12, 2019, the construction unit of No. 2 Cave of Xili Hydropower Station Sichuan Daxinan Engineering Construction and Development Co., Ltd. sued the Intermediate People's Court of Aba Prefecture, requiring Xingding Company to: 1. dissolve the "Contract Document on Maoergai River Xili Hydropower Station Diversion Tunnel Project 2 # Working Face" (Contract No.: XL/CI-2) signed by both parties on May 31, 2010; 2. pay RMB 56.0102 million of Daxinan Company's loss from the main hole since February 18, 2013 to now; 3. pay RMB 20.281 million of Daxinan Company's loss from the branch hole from May 28, 2010 to February 17, 2013; 4. pay RMB 10 million of interests from February 18, 2013 to June 30, 2019, with the total losses of RMB 86.2912 million; and 5. pay all litigation costs including the case acceptance fees and appraisal fees. As of December 31, 2019, due to the case in the trial process, the specific amount of the loss will be determined by the judge.

(3) During the construction of the No. 1 Cave of Jianke Hydropower Station by Sichuan Daxinan Engineering Construction and Development Co., Ltd., the construction was suspended due to historical issues, and both parties failed to reach consensus on the compensation for the suspension of construction. On October 17, 2018, Songpan Branch of Xingding Company received the “Civil Proceedings” of Sichuan Daxinan Engineering Construction and Development Co., Ltd., the construction unit of the No. 1 # Cave of Jianke Hydropower Station, requiring 1. Xingding Company to pay Daxinan Company RMB 4.2298 million of the loss from the failure to form system power, power outage during construction, power outage and pumping, villagers ’obstruction and Party A's delay in providing materials; RMB 8.3212 million of landslide treatment engineering cost; RMB 12.8547 million of compensation for temporary supporting due to changes in surrounding rock type; RMB 12.2336 million of loss from the stoppages of whole line; RMB 1.0675 million of labor cost and adjustment fee for explosive materials; RMB 0.3375 million of safety and civilized construction measures cost; with the total cost of RMB 39,044,200. 2. Songpan Branch of Xingding Company to pay all litigation costs on this case. As of December 31, 2019, the case has entered the appraisal process. The specific loss amount will be at the discretion of the judge.

(4) On July 16, 2010, Sichuan Taineng Water Conservancy and Hydropower Development Co., Ltd. (hereinafter referred to as "Taineng Company") and Xingding Company signed a contract on the construction of No. 6 Cave, surge chamber and pressure pipeline project of Xili Hydropower Station. During the construction period, the construction was shut down for various reasons. Xingding Company consulted with Taineng Company on the settlement of related expenses with reference to the judgment standard of No. 1 Cave of Xili Hydropower Station. Both parties failed to reach an agreement. Taineng Company sued to the Intermediate People's Court of Aba Prefecture with the object of object of litigation including: 1. termination of the contract; 2. payment of outstanding project payments, various losses during the performance of the contract, and costs related to termination of the contract totaling RMB 33.5717 million; 3. all litigation costs including case acceptance fees and appraisal fees to be borne by Xingding Company. As of December 31, 2019, the case has entered the appraisal process, and the specific loss amount will be at the discretion of the judge.

(5) The Company and the Jindi bentonite mine in Nanpiao District, Huludao City crossed the line of 119 meters, covering an area of 46 mu. In July 2015, both parties signed the Framework Agreement on Compensation for Overlaying Mineral Resources in the Land Use Area of the Jinchi Railway Construction Project, agreeing that: both parties shall jointly entrust a qualified evaluation agency to evaluate the rights of the covered mines within 300 meters on each side of the railway line, and the evaluation results shall serve as the basis for compensation. Jinchi Railway Co., Ltd. has deposited RMB 45 million in the designated special account as a deposit for solving the covered mine compensation as required by the Nanpiao District Government. On November 7, 2016, without the consent of Jinchi Railway Co., Ltd., the Nanpiao District Government made a compensation payment of RMB 21.2089 million to Jindi Mining in accordance with the evaluation result of China Enterprise Appraisals Co., Ltd.. On October 23, 2017, Jindi Mining filed a lawsuit to the Huludao Intermediate People's Court, requiring the second compensation approximately amounting to RMB 53.3215 million for the loss from the value of its resource reserves in the mining area, investment in existing mining facilities and relocation facilities, land acquisition, deep processing income of other resources, and downstream production links. In response to this appeal, Jinchi Railway Co., Ltd. believed that there was no legal basis. Huludao Intermediate People's Court held two hearings respectively on December 4, 2017 and January 26, 2018. The court agreed with Jindi Mining's request to assess subsequent economic losses. On November 19, 2019, the Company received the first instance judgment of Huludao Intermediate People's Court, which ordered the Company to compensate the plaintiff Jindi Mining for RMB 115.6285 million. The Company has appealed to the Liaoning Higher People's Court on November 28, 2019. As of December 31, 2019, the lawsuit is still in the process of second instance.

As the third party, the Company was sued by Yuan Haiyu and Liu Haixiang in the administrative lawsuit of the Huludao Nanpiao District People's Government. The plaintiff requested the Court to confirm the illegal acts of the defendant, the people's government of Nanpiao District, Huludao City, including demolition of the plaintiff ’s house, damage to the plaintiff ’s trees, and compulsory possession of the plaintiff ’s land during the land acquisition and demolition by the Jinchi Railway, and to judge the defendant to compensate RMB 10.2968 million for the loss of property and loss of suspension of production or business. The Huludao Intermediate People's Court made an administrative ruling (2016 L 14 XC No. 74) on December 24, 2016, dismissing the lawsuit of the plaintiffs Yuan Haiyu and Liu Haixiang. The plaintiff filed a lawsuit with the Liaoning Provincial Higher People's Court on January 9, 2017. On September 20, 2018, the Provincial Higher Court heard the case. On December 20, it made an administrative ruling, revoking the original ruling and remanding the case back for retrial. On January 8, 2020, the Huludao Intermediate People's Court ruled that the Nanpiao District People's Government should compensate the plaintiff RMB 1.0063 million for five unlicensed houses, attachments, and forest trees and relevant interests (interest calculated from October 15, 2015 to the date when the interests were fully paid and at the one-year fixed deposit interest rate of the People's Bank of China). The plaintiff disobeyed the judgment and appealed to the Liaoning Higher People's Court on January 21, 2020. This case is still in the process of second trial.

(6) For the disputes over the contract on the transfer of mining rights between SPIC Shanxi Aluminum Co., Ltd. (Party A) and Meng Aiwei (Party B), Shanxi Higher People's Court heard the case on Party B suing Party A in regard of such dispute, and made a final judgment, ruling against Party A and supporting Party B's claim on principal and interest owed, involving about RMB 155 million. However, Party A refused to accept the judgment and continued to appeal. The Supreme People's Court of the People's Republic of China issued a civil ruling paper (ZGFMS No. 5285 [2018]), ruling that the case will be retried by the Supreme People's Court, and that the execution of original judgement will be suspended during the retrial period.

The asset value involved in the case and related to the integrated mine should be subject to the evaluation results. Before the Supreme Court has made a final judgment on the case, it is impossible to estimate the asset transfer payment that should be paid at present.

(7) A case on the mining of open-pit mine by Baiyinhua Coal Power Co., Ltd., a subsidiary of the Group, resulting in a destruction of grassland ecological resources, which was possible to be harmful to the public interest was filed for investigation according to the Written Decision of Case-filing issued by Xilin Gol League Procuratorate Branch ([2019] No. 15250000004). The punishment area of Baiyinhua Coal Power Co., Ltd. was 11,944.3089 mu in this time based on the received punishment on the existing land, and the penalty was calculated in accordance with the punishment standard of 6-12 times of the current annual output value of RMB 125.24 / mu, and the average value was RMB 13.4631 million.

A case on the mining of open-pit mine by Baiyinhua Coal Power Co., Ltd., a subsidiary of the Group, resulting in a destruction of grassland ecological resources, which was possible to be harmful to the public interest was filed for investigation according to the Written Decision of Case-filing issued by Xilin Gol League Procuratorate Branch ([2019] No. 15250000004). The punishment area of Baiyinhua Coal Power Co., Ltd. was 21,398.01 mu in this time based on the received punishment on the existing land, and the penalty was calculated in accordance with the punishment standard of 6-12 times of the current annual output value of RMB 125.24 / mu, and the average value was RMB 24.119 million.

(8) Execution of objection by the outsider on Inner Mongolia HMHJ Aluminum Electricity Co., Ltd. (hereinafter referred to as "HMHJ Aluminum Electricity Company") v. Bank of Communications Co., Ltd. Qingdao Branch (hereinafter referred to as "Bank of Communications Qingdao Branch"): for the case on Bank of Communications Qingdao Branch suing Qingdao Yida Mining Co., Ltd., Dezheng Resources Holdings Co., Ltd. (hereinafter referred to as “Dezheng Resources”), Hualong Xianqi Aluminum Co., Ltd., Chen Jihong, and Zheng Liumei in regard of the dispute over the financial loan contract, the Qingdao Intermediate People ’s Court made a legally effective judgment ([2014] QJSCZ No. 461) , judging that Bank of Communications Qingdao Branch had a priority of compensation for 438.9 million equity held by Dezheng Resources in HMHJ Aluminum Electricity Company (the pledge right registration No. [2012] GZDJSZ No. 001), when the discount price, auction price or transaction price of such equity was within the maximum amount of RMB 1.32 billion. In August 2016, Qingdao Intermediate People's Court made and delivered the Execution Ruling ([2015] QZZ No. 353-17) and the Notice on the Assistance in Execution ([2015] QZZ No. 353-18) to HMHJ Aluminum Electricity Company, requesting HMHJ Aluminum Electricity Company to assist in the implementation of the following matters: If the frozen and sealed pledge is handed to Bank of Communications Qingdao Branch, Dezheng Resources shall obtain the dividends receivable from HMHJ Aluminum Electricity Company since May 31, 2014 to now (the dividends subject to the actually receivable dividends); if the withhold and withdrawn pledge is handed to Bank of Communications Qingdao Branch, Dezheng Resources shall obtain RMB 131.9816 million of the dividends receivable from HMHJ Aluminum Electricity Company (the dividends subject to the actually receivable dividends). Later, HMHJ Aluminum Electricity Company filed a written execution objection to the Qingdao Intermediate People's Court. On January 16, 2017, the Qingdao Intermediate People's Court rejected HMHJ Aluminum Electricity Company's objection request.

On February 6, 2017, HMHJ Aluminum Electricity Company sued the Bank of Communications Qingdao Branch to Qingdao Intermediate People's Court, requesting the Court to order the revocation of Execution Rulings ([2015] QZZ No. 353-17 and [2017] L No. 02 ZY No. 4). The Qingdao Intermediate People's Court accepted the case on February 7, 2017. On December 25, 2017, the Qingdao Intermediate People's Court issued a Civil Judgment ([2017] L No. 02 MC No. 330), dismissing HMHJ Aluminum Electricity Company's claims. On January 26, 2018, HMHJ Aluminum Electricity Company filed an appeal with the Shandong Higher People's Court.

On September 4, 2018, the Shandong Provincial Higher People's Court issued a "Civil Judgment" ([2018]) LMZ No. 1122), dismissing HMHJ Aluminum Electricity Company's appeal, and upholding the original judgment made by Qingdao Intermediate People's Court. The above judgment has not been applied for execution.

(9) As of December 31, 2019, litigation matters of the Company's subordinate company, Bridge Trust, with a litigation amount of more than RMB 1 million were as follows (monetary unit: RMB'0,000)

Item	Number of litigation cases	Amount involving the litigation as at December 31, 2019	Remark
Litigation matter	1	47,401.09	Comment
Prosecution matter	15	363,192.06	
As a third party in the litigation matter	11	258,800.00	Transaction management trust business

Comments: On January 15, 2016, Bridge Trust, a subordinate company of the Company, established the “Bridge Hengyi No. 313 Single Fund Trust (Baota Petrochemical Tenth Phase)” (hereinafter referred to as “Hengyi No. 313”) as entrusted by Hengfeng Bank, with the agreed expiry date on January 15, 2017. The total scale of the trust funds was RMB 1 billion, which was divided into three-phase trust. The first phase of the trust funds of RMB 500 million has been liquidated in advance on January 10, 2017. After the establishment of the trust, the trust funds issued loans to Baota Petrochemical by three phases to supplement its working capital for crude oil storage and transportation, refined oil processing and other daily operation. Sun Hengchao, the actual controller of the borrower, Ningxia Baota Energy Chemical Co., Ltd. and Ningxia Baota Oil and Gas Sales Co., Ltd. provided joint liability guarantees for the trust loans. After the trust loan expired, the borrower failed to repay the principal and interest of the loan in full and on time. Bridge Trust terminated the trust on May 10, 2018 and returned the trust of original creditor's rights to Hengfeng Bank on May 14.

On December 26, 2018, the plaintiff filed a lawsuit with the Henan Provincial Higher People's Court: (1) requiring Bridge Trust to compensate its principal and interest losses; (2) requiring other defendants and the third party to bear joint and several liability for the above request; and (3) requiring the defendant and the third party to bear the litigation fee, security fee, security guarantee fee and lawyer fee. On January 9, 2019, Henan Higher People's Court issued the Notice of Respondence to Action ([2018] YMC No. 114) to Bridge Trust. Up to now, the above case has been transferred to the Yinchuan Intermediate People's Court by the Henan Higher People's Court. However, Bridge Trust has not received the relevant judicial documents on the case transfer, and the case has not yet been heard.

9.1.2 Information on the guarantees provided for units within or outside the Group (Monetary Unit: RMB '0,000)

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Total							6,618,190.02	980,887.43
	I. For the entities within the Group							6,573,995.11	980,887.43
1	China Power International Holding Limited	China Power Hongze Thermal Power Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,400.00	
2	China Power International Holding Limited	China Power Dafeng Wind Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Other guarantee	Without counter guarantee	103,850.00	
3	China Power International Holding Limited	China Power Hubu Power Generation Co., Ltd.	State-owned holding	No	General guarantee	Other guarantee	Without counter guarantee	742,980.63	
4	China Power International Development Limited	China Power (Pu'an) New Energy Co., Ltd.	State-owned holding	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	3,000.00	3,000.00
5	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-owned holding	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	5,000.00	5,000.00
6	China Power International Development Limited	China Power Shentou Power Generation Co., Ltd.	State-owned holding	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	37,607.00	
7	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-owned holding	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	27,800.00	
8	China Power International Development Limited	China Power (Pu'an) Power Generation Co., Ltd.	State-owned holding	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	29,600.00	
9	China Power International Development	China Power (Pu'an) Power Generation Co.,	State-owned holding	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	25,000.00	25,000.00

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Limited	Ltd.							
10	China Power International New Energy Holding Company Limited	Renhuai China Power Environmental Protection Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	43,000.00	
11	China Power International New Energy Holding Company Limited	China Power Hongze Thermal Power Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	5,000.00	
12	China Power International New Energy Holding Company Limited	Beizhen China Power Environmental Protection Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	24,000.00	24,000.00
13	China Power International New Energy Holding Company Limited	China Power Hongze Thermal Power Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	8,300.00	
14	China Power International New Energy Holding Company Limited	Tieling China Power Environmental Protection Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	40,400.00	
15	China Power International New Energy Holding Company Limited	Shangqiu China Power Environmental Protection Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	60,228.00	
16	China Power International New Energy Holding Company	Bazhou China Power Environmental Protection Power	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	20,000.00	

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Limited	Generation Co., Ltd.							
17	China Power International New Energy Holding Company Limited	Pingdingshan China Power Environmental Protection Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	58,182.00	
18	China Power International New Energy Holding Company Limited	Bazhou China Power Environmental Protection Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	14,800.00	
19	China Power International New Energy Hainan Co., Ltd.	China Power Yunhe PV Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	5,800.00	
20	China Power International Energy Investment Hainan Co., Ltd.	Jiangxi China Power Yineng Distributed Energy Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	5,000.00	
21	China Power (Fujian) Power Development Co., Ltd.	Chongqing Meixi River Basin Hydropower Development Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	9,000.00	
22	China Power (Fujian) Power Development Co., Ltd.	Xiamen China Power PV Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	6,900.00	
23	China Power (Fujian) Power Development Co., Ltd.	Chongqing Meixi River Basin Hydropower Development Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	12,000.00	
24	Zhangping Huakou	Zhao'an China Power PV Power	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	7,850.00	

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Hydropower Co., Ltd.	Generation Co., Ltd.							
25	Guizhou Qingshuijiang Hydropower Co., Ltd. (Consolidated)	Guizhou Qingshuijiang Hydropower Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	30,000.00	
26	Shanghai Electric Power Co., Ltd.	Shanghai Shangdian Power Engineering Co., Ltd.	State-owned holding	No	Joint liability guarantee	Performance guarantee	Without counter guarantee	1,646.29	
27	Shanghai Electric Power Co., Ltd.	Shanghai Electric Power Finance Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	348,810.00	
28	State Nuclear Bao Ti Zirconium Industry Company	Northwest Zirconium Tube Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	8,170.00	
29	State Nuclear Bao Ti Zirconium Industry Company	Northwest Zirconium Tube Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,743.00	
30	State Nuclear Bao Ti Zirconium Industry Company	Northwest Zirconium Tube Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	6,900.00	
31	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	Operating entities	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	20,000.00	20,000.00
32	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	Operating entities	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	20,000.00	20,000.00
33	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum	Operating entities	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	20,000.00	20,000.00

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
		Electricity Co., Ltd.							
34	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	Operating entities	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	18,000.00	18,000.00
35	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	Operating entities	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	38,000.00	38,000.00
36	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	Operating entities	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	12,000.00	12,000.00
37	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	Operating entities	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	20,000.00	20,000.00
38	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	Operating entities	Yes	Joint liability guarantee	Sale and leaseback guarantee	Without counter guarantee	8,375.00	
39	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	Operating entities	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	5,445.00	5,445.00
40	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	Operating entities	Yes	Joint liability guarantee	Performance guarantee	Without counter guarantee	2,000.00	
41	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ	Operating entities	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	27,000.00	27,000.00

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
		Aluminum Electricity Co., Ltd.							
42	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	Operating entities	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	4,555.00	4,555.00
43	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	Operating entities	Yes	Joint liability guarantee	Sale and leaseback guarantee	Without counter guarantee	10,375.00	
44	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	Operating entities	Yes	Joint liability guarantee	Performance guarantee	Without counter guarantee	2,000.00	
45	SPIC Mengdong Energy Co., Ltd.	SPIC Inner Mongolia Baiyinhua Coal and Electricity Co., Ltd.	Operating entities	No	Joint liability guarantee	Sale and leaseback guarantee	Without counter guarantee	17,000.00	
46	SPIC Mengdong Energy Co., Ltd.	Tongliao No. 2 Power Generation Co., Ltd.	Operating entities	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	6,000.00	6,000.00
47	SPIC Mengdong Energy Co., Ltd.	SPIC Inner Mongolia Baiyinhua Coal and Electricity Co., Ltd.	Operating entities	No	Joint liability guarantee	Sale and leaseback guarantee	Without counter guarantee	13,000.00	
48	SPIC Mengdong Energy Co., Ltd.	Inner Mongolia Baiyinhua Mengdong Open-pit Coal Industry Co., Ltd.	Operating entities	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	18,000.00	18,000.00
49	Mengdong Xiehe New Energy Co.,	Jingmen Xiehe Wind Power	State-owned holding	No	General guarantee	Loan guarantee	Without counter guarantee	19,500.00	

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Ltd.	Generation Co., Ltd.							
50	Mengdong Xiehe New Energy Co., Ltd.	Mengdong Xiehe Kailu Wind Power Generation Co., Ltd.	State-owned holding	No	General guarantee	Loan guarantee	Without counter guarantee	17,000.00	17,000.00
51	Mengdong Xiehe New Energy Co., Ltd.	Mengdong Xiehe (Jarud Banner) North Sala Wind Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	19,000.00	19,000.00
52	Mengdong Xiehe New Energy Co., Ltd.	Hebi Xiehe Junlong Wind Power Generation Co., Ltd.	State-owned holding	No	General guarantee	Loan guarantee	Without counter guarantee	14,000.00	
53	Mengdong Xiehe New Energy Co., Ltd.	Mengdong Xiehe Kailu Wind Power Generation Co., Ltd.	State-owned holding	No	General guarantee	Loan guarantee	Without counter guarantee	29,400.00	29,400.00
54	SPIC Inner Mongolia Baiyinhua Coal and Electricity Co., Ltd.	Jingmen Xiehe Wind Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	1,350.00	
55	SPIC Chongqing Electric Power Co., Ltd.	SPIC Chongqing Baihe Electric Power Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	16,800.00	
56	SPIC Chongqing Electric Power Co., Ltd.	Wudongyan Wind Power Generation Co., Ltd., Fengdu County, Chongqing	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	3,853.00	
57	SPIC Chongqing Electric Power	Guizhou Xishui Dingtai Energy	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	8,951.00	6,318.00

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Co., Ltd.	Development Co., Ltd.							
58	Yunnan Zhongyundian New Energy Co., Ltd.	Midu Huiyang Agricultural New Energy Technology Co., Ltd.	State-owned holding	No		Guarantee warranty	With counter guarantee	18,200.00	
59	Yunnan Dianneng (Group) Holding Co., Ltd	Yunnan Dianneng Luliang Union Thermoelectricity Co., Ltd.	State-owned holding	No		Repayment of debt	Repayment of debt	400.00	
60	Yunnan Dianneng (Group) Holding Co., Ltd	Yunnan Dianneng Si'nan River Hydropower Development Co., Ltd.	State-owned holding	No		Loan guarantee	Without counter guarantee	58,600.00	
61	Yunnan Dianneng (Group) Holding Co., Ltd	Yunnan Dianneng Niulan River Hydroelectric Development Co., Ltd.	State-owned holding	No		Debt repurchase	Without counter guarantee	11,100.00	
62	Yunnan Dianneng (Group) Holding Co., Ltd	Yunnan Dianneng Niulan River Hydroelectric Development Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	32,100.00	
63	Yunnan Dianneng (Group) Holding Co., Ltd	Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	403.00	
64	Yunnan Dianneng (Group) Holding Co., Ltd	Yiliang Dianneng Luoze River Basin Power	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	8,000.00	

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
		Generation Co., Ltd.							
65	Yunnan Dianneng (Group) Holding Co., Ltd	Yunnan Dianneng Niulan River Hydroelectric Development Co., Ltd.	State-owned holding	No		Debt repurchase	Without counter guarantee	46,600.00	
66	Yunnan Dianneng (Group) Holding Co., Ltd	Yunnan Dianneng Huize Niulan River Hydroelectric Development Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	21,400.00	
67	Yunnan Dianneng (Group) Holding Co., Ltd	Yunnan Dianneng Niulan River Hydroelectric Development Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	20,000.00	
68	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Zhongyundian New Energy Co., Ltd.	State-owned holding	No		Debt repurchase	Without counter guarantee	8,800.00	
69	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Chuxiong Hydropower Development Co., Ltd.	State-owned holding	No		Repayment of debt	Without counter guarantee	9,000.00	
70	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd.	State-owned holding	No		Repayment of debt	Without counter guarantee	18,800.00	
71	SPIC Yunnan International Power Investment	Yiliang Dianneng Luoze River Basin Power	State-owned holding	No		Debt repurchase	Without counter guarantee	12,000.00	

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Co., Ltd.	Generation Co., Ltd.							
72	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd.	State-owned holding	No		Debt repurchase	Without counter guarantee	28,000.00	
73	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd.	State-owned holding	No		Debt repurchase	Without counter guarantee	6,667.00	
74	SPIC Yunnan International Power Investment Co., Ltd.	Guanling Zhongji Energy Co., Ltd.	State-owned holding	No		Debt repurchase	With counter guarantee	28,400.00	
75	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng (Group) Holding Co., Ltd., Pingbian Branch	State-owned holding	No		Debt repurchase	Without counter guarantee	9,800.00	
76	SPIC Yunnan International Power Investment Co., Ltd.	Lulianghui Kuntianhe Solar Power Development Co., Ltd.	State-owned holding	No		Debt repurchase	With counter guarantee	10,265.00	
77	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Chuxiong Hydropower Development Co., Ltd.	State-owned holding	No		Repayment of debt	Without counter guarantee	5,500.00	
78	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Luquan Electric Phosphorus Development	State-owned holding	No		Debt repurchase	Without counter guarantee	21,800.00	

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
		Co., Ltd.							
79	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Huize Niulan River Hydroelectric Development Co., Ltd.	State-owned holding	No		Debt repurchase	Without counter guarantee	18,000.00	
80	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd.	State-owned holding	No		Repayment of debt	Without counter guarantee	13,400.00	
81	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd.	State-owned holding	No		Repayment of debt	Without counter guarantee	10,400.00	
82	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Si'nan River Hydropower Development Co., Ltd.	State-owned holding	No		Letter of Comfort issued by Yunnan International	Without counter guarantee	14,000.00	
83	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	1,075.00	
84	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd.	State-owned holding	No		Repayment of debt	Without counter guarantee	14,400.00	
85	SPIC Yunnan International	Lvchun Xinyuan Power	State-owned holding	No		Debt repurchase	Without counter guarantee	11,000.00	

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Power Investment Co., Ltd.	Generation Co., Ltd.							
86	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Chuxiong Hydropower Development Co., Ltd.	State-owned holding	No		Repayment of debt	Without counter guarantee	5,600.00	
87	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Niulan River Hydroelectric Development Co., Ltd.	State-owned holding	No		Debt repurchase	Without counter guarantee	23,000.00	
88	SPIC Yunnan International Power Investment Co., Ltd.	Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	50,000.00	
89	SPIC Sichuan Electric Power Co., Ltd. (Parent company)	Sichuan Wisdom Xinneng Electric Sales Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	800.00	800.00
90	SPIC Sichuan Electric Power Co., Ltd. (Parent company)	Xiangcheng Hongneng Power Co., Ltd. (Parent company)	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	4,540.00	
91	SPIC Sichuan Electric Power Co., Ltd. (Parent company)	Sichuan Wisdom Xinneng Electric Sales Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	47.33	
92	SPIC Sichuan Electric Power Co., Ltd. (Parent company)	SPIC Sichuan Aba New Energy Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	11,100.00	
93	SPIC Sichuan Electric Power Co., Ltd. (Parent	Xiangcheng Xinneng PV Development	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	27,625.00	

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	company)	Co., Ltd.							
94	SPIC Sichuan Electric Power Co., Ltd. (Parent company)	Xiangcheng Xinneng PV Development Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	8,250.00	8,250.00
95	SPIC Sichuan Electric Power Co., Ltd. (Parent company)	Xiangcheng Hongeng Power Co., Ltd. (Parent company)	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	14,160.00	
96	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	4,446.37	
97	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	SPIC Ningxia Energy Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	20,000.00	10,000.00
98	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	SPIC Ningxia Energy Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	10,000.00
99	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	30,000.00	30,000.00
100	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	1,900.00	1,900.00
101	SPIC Ningxia Energy Aluminum Co.,	SPIC Ningxia Energy Aluminum	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	11,700.00	

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Ltd.	Zhongwei New Energy Co., Ltd.							
102	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	495.90	495.90
103	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Co., Ltd., Linhe Power Generation Branch	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	20,000.00	
104	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	6,000.00	6,000.00
105	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	1,000.00	
106	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	1,000.00	1,000.00
107	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	166.92	166.92
108	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	167.94	167.94
109	SPIC Ningxia Energy Aluminum Co.,	SPIC Ningxia Energy Aluminum	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	74,200.00	

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Ltd.	Zhongwei New Energy Co., Ltd.							
110	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	12,000.00	12,000.00
111	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	10,000.00	10,000.00
112	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	5,500.00	5,500.00
113	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Wuzhong New Energy Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	
114	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	2,000.00	2,000.00
115	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	2,850.00	2,850.00
116	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Qinxin Tansu Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	3,000.00	3,000.00
117	SPIC Ningxia Energy Aluminum Co.,	Qingtongxia Aluminum Power Generation Co.,	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	5,000.00	5,000.00

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Ltd.	Ltd.							
118	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	511.77	511.77
119	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	332.82	332.82
120	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	167.43	167.43
121	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	16,000.00	16,000.00
122	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	20,000.00	20,000.00
123	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Co., Ltd., Linhe Power Generation Branch	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,000.00	
124	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	5,000.00	5,000.00
125	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	519.90	519.90
126	SPIC Ningxia Energy Aluminum Co.,	Qingtongxia Aluminum Power Generation Co.,	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	331.81	331.81

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Ltd.	Ltd.							
127	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	333.84	333.84
128	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	166.41	166.41
129	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	8,000.00	
130	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Science and Technology Engineering Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	3,000.00	3,000.00
131	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Science and Technology Engineering Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	3,000.00	3,000.00
132	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Yinchuan New Energy Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,270.00	
133	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Qinxin Tansu Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	12,000.00	12,000.00
134	SPIC Ningxia	Qingtongxia	State-owned	No	Joint liability	Loan	Mortgage	4,000.00	4,000.00

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Energy Aluminum Co., Ltd.	Aluminum Power Generation Co., Ltd.	holding		guarantee	guarantee			
135	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	12,000.00	12,000.00
136	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	8,900.00	8,900.00
137	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	18,000.00	18,000.00
138	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	1,824.58	1,824.58
139	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	840.00	840.00
140	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	3,000.00	
141	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	5,000.00	5,000.00
142	SPIC Ningxia Energy Aluminum Co.,	Qingtongxia Aluminum Power Generation Co.,	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	488.14	488.14

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Ltd.	Ltd.							
143	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	335.88	335.88
144	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	15,000.00	15,000.00
145	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	10,000.00	10,000.00
146	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Co., Ltd., Linhe Power Generation Branch	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	9,920.00	9,920.00
147	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	910.00	910.00
148	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	28,000.00	28,000.00
149	SPIC Ningxia Energy Aluminum Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	7,950.00	
150	SPIC Ningxia Energy	Qingtongxia Aluminum Power	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	503.77	503.77

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Aluminum Co., Ltd.	Generation Co., Ltd.							
151	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	334.86	334.86
152	SPIC Ningxia Energy Aluminum Co., Ltd.	Qingtongxia Aluminum Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	165.90	165.90
153	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	25,700.00	25,700.00
154	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Ningxia Energy Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	35,000.00	35,000.00
155	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	5,000.00	5,000.00
156	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	3,000.00	3,000.00
157	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei Thermoelectricity Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	5,000.00	5,000.00
158	SPIC Aluminum & Power	SPIC Ningxia Energy	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	5,000.00	5,000.00

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Investment Co., Ltd.	Aluminum Zhongwei Thermoelectricity Co., Ltd.							
159	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Guizhou Zunyi Industry Development Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	81,250.00	
160	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Guizhou Zunyi Industry Development Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	60,000.00	
161	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Ningxia Energy Aluminum Yinchuan New Energy Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	17,000.00	17,000.00
162	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	10,700.00	10,700.00
163	SPIC Aluminum & Power Investment Co., Ltd.	SPIC Ningxia Energy Aluminum Zhongwei New Energy Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Mortgage	74,200.00	
164	SPIC Asset Management Co., Ltd. (Parent company)	SPIC Asset Management Co., Ltd. (Parent company)	Wholly state-owned	No	Mortgage	Loan guarantee	Without counter guarantee	2,374.48	
165	State Power Investment Corporation Limited	Tonghua Thermal Power Co., Ltd.	Wholly state-owned	No	General guarantee	Loan guarantee	Without counter guarantee	9,750.00	
166	State Power Investment Corporation Limited	Inner Mongolia Xilingol Baiyinhua Coal and Electricity	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	103,800.00	

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
		Co., Ltd.							
167	State Power Investment Corporation Limited	SPIC Ningxia Energy Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	80,000.00	
168	State Power Investment Corporation Limited	SPIC Pacific Hydro Pty Ltd	Wholly state-owned	No	General guarantee	Loan guarantee	Without counter guarantee	708,630.89	18,051.56
169	State Power Investment Corporation Limited	SPIC Nanyang Thermal Power Co., Ltd.	State-owned holding	No	General guarantee	Loan guarantee	Without counter guarantee	14,400.00	
170	State Power Investment Corporation Limited	Inner Mongolia HMHJ Aluminum Electricity Co., Ltd.	State-owned holding	Yes	Joint liability guarantee	Loan guarantee	Without counter guarantee	160,000.00	160,000.00
171	State Power Investment Corporation Limited	Sichuan Xingding Electric Power Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	51,800.00	
172	State Power Investment Corporation Limited	SPIC 2016 US DOLLAR BOND COMPANY LIMITED	Wholly state-owned	No	General guarantee	Loan guarantee	Without counter guarantee	206,092.13	
173	State Power Investment Corporation Limited	Yunnan Dianneng Luquan Electric Phosphorus Development Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	108,333.33	
174	State Power Investment Corporation Limited	SPIC 2016 US DOLLAR BOND COMPANY LIMITED	Wholly state-owned	No	General guarantee	Loan guarantee	Without counter guarantee	618,276.40	
175	State Power Investment Corporation	SPIC Jianhu PV Power Generation Co.,	State-owned holding	No	General guarantee	Loan guarantee	Without counter guarantee	16,850.00	

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
	Limited	Ltd.							
176	State Power Investment Corporation Limited	Guixi Power Generation Co., Ltd.	State-owned holding	No	General guarantee	Loan guarantee	Without counter guarantee	6,810.00	
177	State Power Investment Corporation Limited	SPIC Guizhou Zunyi Industry Development Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	220,000.00	
178	State Power Investment Corporation Limited	Inner Mongolia Xilingol Baiyinhua Coal and Electricity Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	70,000.00	
179	State Power Investment Corporation Limited	SPIC Shanxi Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	180,000.00	
180	State Power Investment Corporation Limited	SPIC Nanyang Thermal Power Co., Ltd.	State-owned holding	No	General guarantee	Loan guarantee	Without counter guarantee	9,500.00	
181	State Power Investment Corporation Limited	Baishan Thermal Power Co., Ltd.	Wholly state-owned	No	General guarantee	Loan guarantee	Without counter guarantee	9,500.00	
182	State Power Investment Corporation Limited	SPIC Yunnan International Power Investment Co., Ltd.	Wholly state-owned	No	General guarantee	Loan guarantee	Without counter guarantee	72,000.00	72,000.00
183	State Power Investment Corporation Limited	SPIC Zhengzhou Gas Power Generation Co., Ltd.	State-owned holding	No	General guarantee	Loan guarantee	Without counter guarantee	9,741.00	
184	State Power Investment Corporation Limited	SPIC Pingdingshan Thermal Power Co., Ltd.	State-owned holding	No	General guarantee	Loan guarantee	Without counter guarantee	9,700.00	

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
185	State Power Investment Corporation Limited	Jinzhou-Chifeng Railway Co., Ltd.	State-owned holding	No	General guarantee	Loan guarantee	Without counter guarantee	94,062.50	
186	State Power Investment Corporation Limited	SPIC 2018 USD Senior Perpetual Bond Company Limited	Wholly state-owned	No	General guarantee	Loan guarantee	Without counter guarantee	343,486.89	
	II. For the entities outside the Group							44,194.91	
1	SPIC Northeast Energy Technology Co., Ltd.	Liaoning Guodian Huida Power Technology Co., Ltd.	Private	No	Joint liability guarantee	Loan guarantee	Joint liability guarantee	2,963.81	
2	Shanghai Electric Power Co., Ltd.	Zhejiang Shangdian Tiantai Mountain Wind Power Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	1,650.00	
3	Shanghai Electric Power Co., Ltd.	Shanghai Friendship Shipping Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,000.00	
4	Shanghai Electric Power Co., Ltd.	Shanghai Friendship Shipping Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,000.00	
5	Shanghai Electric Power Co., Ltd.	Shanghai Friendship Shipping Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	2,000.00	
6	SPIC Chongqing Electric Power Co., Ltd.	Chongqing Songgai Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	245.00	
7	SPIC Chongqing Electric Power Co., Ltd.	Chongqing Songgai Power Generation Co.,	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	10,780.00	

No.	Guarantor	Guarantee object			Guarantee method	Guarantee type	Method of counter guarantee	Actual amount of guarantee	Increase in the amount of guarantee in 2019
		Name	Nature of enterprise	A listed company or not					
		Ltd.							
8	SPIC Chongqing Electric Power Co., Ltd.	Chongqing Guolong	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	1,779.00	
9	SPIC Chongqing Electric Power Co., Ltd.	Chongqing Energy Investment Group Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	9,480.00	
10	SPIC Chongqing Electric Power Co., Ltd.	Chongqing Songgai Power Generation Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	4,900.00	
11	SPIC Chongqing Electric Power Co., Ltd.	Chongqing Tiantai Aluminum Co., Ltd.	State-owned holding	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	150.00	
12	SPIC Guizhou Jinyuan Co., Ltd.	Huangzhi Railway Co., Ltd.	Private	No	Joint liability guarantee	Loan guarantee	Without counter guarantee	6,247.10	

9.2 Contingent assets

None.

9.3 Other contingencies required to be explained

There were no significant contingencies required to be disclosed as at December 31, 2019.

10 Post balance sheet events

There were no non-adjusting post balance sheet events required to be disclosed by the Company.

11 Related party relationships and transactions

11.1 Information about the parent company of the Company

The Company is a wholly state-owned enterprise, and the ultimate controller of the Company is the State-owned Assets Supervision and Administration Commission of the State Council.

11.2 Information about subsidiaries of the Company

See Note 7 Business combination and consolidated financial statements for details.

11.3 Information about the Company's joint ventures and associates

See Note 8.18 Long-term equity investments for details.

11.4 Information about other related parties of the Company

Name of other related party	Relationship with the Company
Zhongji Guoda Power Technology Jiangsu Co., Ltd.	Joint venture of the Company's subsidiary
Shanghai Friendship Shipping Co., Ltd.	Joint venture of the Company's subsidiary
Shanghai Waigaoqiao No. 3 Power Generation Co., Ltd.	Joint venture of the Company's subsidiary
Shanghai Waigaoqiao No. 2 Power Generation Co., Ltd.	Joint venture of the Company's subsidiary
Shanghai Wujing Power Generation Co., Ltd.	Joint venture of the Company's subsidiary
HLH	Joint venture of the Company's subsidiary
HLC	Joint venture of the Company's subsidiary
Changshu Binjiang Heat Co., Ltd.	Joint venture of the Company's subsidiary
Huaihu Coal & Power Co., Ltd.	Joint venture of the Company's subsidiary
Inner Mongolia Zhongyou Huo Coal Oil Co., Ltd.	Associate of the Company's subsidiary
Shanghai Nuclear Equipment Testing and Verification Center Limited	Associate of the Company's subsidiary
Tongliao Electric Power Construction and Installation Co., Ltd.	Associate of the Company's subsidiary
International Renewable Energy Service Company	Associate of the Company's subsidiary
Guizhou Zunyi Tuanxi Lvxiang Wind Power Co., Ltd.	Associate of the Company's subsidiary
Shanghai Petrochemical Equipment Inspection & Testing Co., Ltd.	Associate of the Company's subsidiary
Chongqing Aijust Co., Ltd.	Associate of the Company's subsidiary
Fuxin Gaohai Mining Co., Ltd.	Associate of the Company's subsidiary
China Nuclear Baotou Nuclear Fuel Components Co., Ltd.	Associate of the Company's subsidiary
Jilin Boda Biochemical Co., Ltd.	Associate of the Company's subsidiary
Shanghai Shenergy Lingang CCGT Power Generation Co., Ltd.	Associate of the Company's subsidiary
Enemalta PLC	Associate of the Company's subsidiary

Name of other related party	Relationship with the Company
Liaoning Guodian Huida Power Technology Co., Ltd.	Associate of the Company's subsidiary
Jarud Banner Tiejin Transportation Co., Ltd.	Associate of the Company's subsidiary
Chuangdao (Shanghai) Intelligent Technology Co., Ltd.	Associate of the Company's subsidiary
Pingdingshan Power Plant	Associate of the Company's subsidiary

11.5 Related-party transactions

11.5.1 For the subsidiaries under the control of the Company and included in the scope of consolidated statements, their mutual transactions and the parent-subsidiary corporation transactions have already been offset.

11.5.2 Purchase of goods/ receipt of services

Related parties	Contents of related-party transactions	Pricing and decision-making process of related-party transactions	Year 2019		Year 2018	
			Amount	Proportion in similar transactions (%)	Amount	Proportion in similar transactions (%)
Inner Mongolia Zhongyou Huo Coal Oil Co., Ltd.	Purchase of goods	Market price/ similar transaction	178,401,351.50	0.08	144,848,086.59	0.08
Shanghai Nuclear Equipment Testing and Verification Center Limited	Technical service	Market price/ similar transaction	62,100,000.00	0.03		
Tongliao Electric Power Construction and Installation Co., Ltd.	Receipt of services and works	Market price/ similar transaction	56,556,780.12	0.03	42,682,985.21	0.02
International Renewable Energy Service Company	Operating service	Market price/ similar transaction	51,976,876.62	0.02	49,626,900.97	0.03
Zhongji Guoda Power Technology Jiangsu Co., Ltd.	Purchase of goods	Market price/ similar transaction	46,929,863.72	0.02	96,470,328.38	0.05
Shanghai Friendship Shipping Co., Ltd.	Shipping charges	Market price/ similar transaction	23,118,820.72	0.01	45,871,064.95	0.03
Shanghai Waigaoqiao No. 3 Power Generation Co., Ltd.	Material procurement	Market price/ similar transaction	5,854,110.67			
Guizhou Zunyi Tuanxi Lvxiang Wind Power Co., Ltd.	Technical advisory service	Market price/ similar transaction	4,528,301.89		1,000,000.00	
Shanghai Waigaoqiao No. 2 Power Generation Co., Ltd.	Material procurement	Market price/ similar transaction	2,196,195.62			
Shanghai Wujing Power	Transaction of power generation	Market price/ similar transaction	1,870,696.24			

Related parties	Contents of related-party transactions	Pricing and decision-making process of related-party transactions	Year 2019		Year 2018	
			Amount	Proportion in similar transactions (%)	Amount	Proportion in similar transactions (%)
Generation Co., Ltd.	right					
HLH	Technical service	Market price/ similar transaction	434,589.00			
Shanghai Petrochemical Equipment Inspection & Testing Co., Ltd.	Technical service	Market price/ similar transaction	126,120.00			
HLC	Technical service	Market price/ similar transaction	104,218.00			
Chongqing Aijust Co., Ltd.	Information system construction	Market price/ similar transaction			3,410,624.51	
Fuxin Gaohai Mining Co., Ltd.	Purchase of goods	Market price/ similar transaction			2,659,112.64	

11.5.3 Sales of goods/ rendering of services

Related parties	Contents of related-party transactions	Pricing and decision-making process of related-party transactions	Year 2019		Year 2018	
			Amount	Proportion in similar transactions (%)	Amount	Proportion in similar transactions (%)
Shanghai Wujing Power Generation Co., Ltd.	Fuel sale, overhaul, operation maintenance, etc.	Market price/ similar transaction	414,118,800.51	0.15	473,052,979.52	0.2
Changshu Binjiang Heat Co., Ltd.	Sale of heating power	Market price/ similar transaction	394,493,634.00	0.14	371,461,476.01	0.16
China Nuclear Baotou Nuclear Fuel Components Co., Ltd.	Revenue from AP1000 technology transfer	Market price/ similar transaction	30,431,474.93	0.01	12,286,160.74	0.01
Jilin Boda Biochemical Co., Ltd.	Sale of heating power	Market price/ similar transaction	27,656,267.78	0.01	234,801,249.03	0.10
Shanghai Waigaoqiao No. 2 Power Generation Co., Ltd.	Technical service	Market price/ similar transaction	12,521,325.15	<0.01	12,001,587.27	<0.01
Shanghai Shenergy Lingang CCGT Power Generation Co., Ltd.	Freight charges	Market price/ similar transaction	3,198,018.58		2,909,050.95	

11.6 Receivables from and payables to related parties

11.6.1 Receivables of the Company from related parties

Item name	Related parties	Balance as at December 31, 2019		Balance as at January 1, 2019		Terms and conditions	Whether to obtain a guarantee or not
		Book balance	Provision for bad debts	Book balance	Provision for bad debts		
Accounts receivable							
	Shanghai Wujing Power Generation Co., Ltd.	854,312,582.07		705,707,972.94		None	No
	Jilin Boda Biochemical Co., Ltd.	86,160,897.61		86,576,140.12		None	No
	Huaihu Coal & Power Co., Ltd.	18,563,477.95		21,653,177.00		None	No
	Enemalta PLC	18,444,580.00		110,445,858.28		None	No
	China Nuclear Baotou Nuclear Fuel Components Co., Ltd.	10,000,000.00				None	No
	Shanghai Waigaoqiao No. 3 Power Generation Co., Ltd.	6,798,295.16	301,812.46	12,078,720.15		None	No
	Tongliao Electric Power Construction and Installation Co., Ltd.			10,582,969.80	4,877,537.10	None	No
	Shanghai Waigaoqiao No. 2 Power Generation Co., Ltd.	1,099,167.24		869,033.68		None	No
	Shanghai Shenergy Lingang CCGT Power Generation Co., Ltd.	365,535.64				None	No
	Shanghai Petrochemical Equipment Inspection & Testing Co., Ltd.	4,500.00		77,578.00		None	No
	Liaoning Guodian Huida Power Technology Co., Ltd.			230,710.00		None	No
Advances to suppliers							
	Jarud Banner Tiejin Transportation Co., Ltd.	23,862,495.53		51,854,523.70		None	No
	Inner Mongolia Zhongyou Huo Coal Oil Co., Ltd.	5,463,103.34		2,707,013.63		None	No
Other receivables							
	Chuangdao (Shanghai) Intelligent Technology Co., Ltd.	2,456,784.49		4,182,714.01		None	No
	Pingdingshan Power Plant			27,505,928.80		None	No
	Shanghai Waigaoqiao No. 2 Power Generation Co., Ltd.			3,700,000.00		None	No
	Shanghai Waigaoqiao No. 3 Power Generation Co., Ltd.	389,900.00		2,050,000.00		None	No
	Tongliao Electric Power Construction and Installation Co., Ltd.	14,391,421.86	4,428,224.37	19,291,421.86	4,428,224.37	None	No

11.6.2 The Company's payables to related parties

Item name	Related parties	Balance as at December 31, 2019	Balance as at January 1, 2019	Terms and conditions	Whether to provide a guarantee or not
Accounts payable					
	Huaihu Coal & Power Co., Ltd.	168,589,023.52	388,215,667.18	None	No
	Shanghai Waigaoqiao No. 3 Power Generation Co., Ltd.	1,951,277.07		None	No
	Tongliao Electric Power Construction and Installation Co., Ltd.	15,532,625.62	24,137,040.94	None	No
	Enemalta PLC	22,792,870.21		None	No
	Zhongji Guoda Power Technology Jiangsu Co., Ltd.	4,764,826.45	2,228,050.45	None	No
Other payables					
	Shanghai Wujing Power Generation Co., Ltd.	6,672,821.90	1,563,485.90	None	No
	Tongliao Electric Power Construction and Installation Co., Ltd.	62,000.00	420,424.00	None	No
	Inner Mongolia Zhongyou Huo Coal Oil Co., Ltd.		58,000.00	None	No
	Enemalta PLC		3,331,635.64	None	No
Dividends payable					
	Enemalta PLC	4,382,911.59	2,604,787.09	None	No

12 Information that helps financial statement users evaluate the goals, policies and procedures of corporate management capital

None.

13 Notes to main items of financial statements of the parent company

13.1 Accounts receivable

13.1.1 Disclosure of account receivables by category

Category	Amount as at December 31, 2019					Amount as at January 1, 2019				
	Book balance		Provision for bad debts		Book value	Book balance		Provision for bad debts		Book value
	Amount	Proportion (%)	Amount	Proportion of provision (%)		Amount	Proportion (%)	Amount	Proportion of provision (%)	
Accounts receivable with individually significant amount and individual provision for bad debts										
Accounts receivable with provision for bad debts accrued by credit risk features portfolio	2,091,752,142.31	99.95			2,091,752,142.31	2,235,399,971.64	99.98			2,235,399,971.64
Accounts receivable with individually insignificant amount and individual provision for bad debts	1,052,671.00	0.05	250,000.00	23.75	802,671.00	500,000.00	0.02	250,000.00	50.00	250,000.00
Total	2,092,804,813.31	100.00	250,000.00		2,092,554,813.31	2,235,899,971.64	100.00	250,000.00		2,235,649,971.64

(1) Accounts receivable with provision for bad debts accrued by credit risk features portfolio

1) Accounts receivable with the provisions for bad debts made by aging analysis method

Aging	Amount as at December 31, 2019			Amount as at January 1, 2019		
	Book balance		Provision for bad debts	Book balance		Provision for bad debts
	Amount	Proportion (%)		Amount	Proportion (%)	
Within 1 year (inclusive)	85,698,662.09	100.00		250,000.00	100.00	
1-2 years						
2-3 years						
Over 3 years						
Total	85,698,662.09	100.00		250,000.00	100.00	

2) Accounts receivable with provision for bad debts accrued by using balance percentage method or other combination methods

Portfolio name	Amount as at December 31, 2019			Amount as at January 1, 2019		
	Book balance	Proportion of provision (%)	Provision for bad debts	Book balance	Proportion of provision (%)	Provision for bad debts
Risk-free portfolio	2,006,053,480.22			2,235,149,971.64		
Total	2,006,053,480.22			2,235,149,971.64		

3) Accounts receivable with individually insignificant amount and individual provision for bad debts

Debtor name	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
Zhangze Power Generation Branch of Shanxi Zhangze Electric Power Co., Ltd.	1,052,671.00	250,000.00	Over 5 years	23.75	Expected to be partially irrecoverable
Total	1,052,671.00	250,000.00			

13.1.2 Top five of accounts receivable in terms of ending balance collected by the debtor

Debtor name	Book balance	Proportion in total accounts receivable (%)	Provision for bad debts
CPI Power Engineering Co., Ltd.	182,452,373.35	8.72	
Qinghai Huanghe Hydropower Development Co. Ltd. Gonghe Wind Power Generation Branch	166,572,055.07	7.96	
State Nuclear Electric Power Planning Design & Research Institute Co., Ltd.	93,081,884.15	4.45	
CPI Xinjiang Energy Chemical Group Hami Co., Ltd.	92,669,157.50	4.43	
Binhai Wisdom Wind Power Generation Co., Ltd.	90,411,659.58	4.32	
Total	625,187,129.65	29.88	

13.2 Other receivables

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Interest receivable	8,562,990.28	5,171,782.64
Dividends receivable	2,088,288,497.16	1,230,579,609.64
Other receivables	3,889,454,142.35	8,415,886,996.27
Total	5,986,305,629.79	9,651,638,388.55

13.2.1 Interest receivable

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
Entrusted loans	8,562,990.28	5,171,782.64
Total	8,562,990.28	5,171,782.64

13.2.2 Dividends receivable

Item	Balance as at December 31, 2019	Balance as at January 1, 2019	Reason for unrecovery	Whether the dividends are impaired or not, and the judgment basis
Dividends receivable with the aging within one year	916,785,790.99	248,894,575.50		
Including: (1) China Power International Development Limited		59,076,903.47	Not yet paid	No
(2) CPI Power Engineering Co., Ltd.		189,817,672.03	Not yet paid	No
(3) State Nuclear Capital Holdings Co., Ltd.	115,519,921.88		Not yet paid	No
(4) SPIC Capital Holding Co., Ltd.	801,265,869.11		Not yet paid	No
Dividends receivable with the aging exceeding one year	1,171,502,706.17	981,685,034.14		
(1) CLP Nuclear Power Co., Ltd.	794,478,902.12	794,478,902.12	Not yet paid	No
(2) CPI Power Engineering Co., Ltd.	189,817,672.03		Not yet paid	No
(3) State Nuclear Power Technology Corporation	187,206,132.02	187,206,132.02	Not yet paid	No
Total	2,088,288,497.16	1,230,579,609.64		

13.2.3 Other receivables

(1) Disclosure of other receivables by category

Category	Amount as at December 31, 2019				Amount as at January 1, 2019			
	Book balance		Provision for bad debts		Book balance		Provision for bad debts	
	Amount	Proportion (%)	Amount	Proportion (%)	Amount	Proportion (%)	Amount	Proportion (%)
Other receivables with individually significant amount and individual provision for bad debts								
Other receivables with provision for bad debts accrued by credit risk features portfolio	3,889,454,142.35	99.96			8,415,886,996.27	99.98		
Other receivables with individually insignificant amount and individual provision for bad debts	1,500,000.00	0.04	1,500,000.00	100.00	1,500,000.00	0.02	1,500,000.00	100.00
Total	3,890,954,142.35	100.00	1,500,000.00		8,417,386,996.27	100.00	1,500,000.00	

1) Other receivables with provision for bad debts accrued by credit risk features portfolio

Other receivables with provision for bad debts made by the percentage of balance method or other combination methods

Portfolio name	Amount as at December 31, 2019			Amount as at January 1, 2019		
	Book balance	Proportion of provision (%)	Provision for bad debts	Book balance	Proportion of provision (%)	Provision for bad debts
Risk-free portfolio	3,878,798,494.46			8,415,523,288.36		
Other portfolios	10,655,647.89			363,707.91		
Total	3,889,454,142.35			8,415,886,996.27		

2) Other receivables with individually insignificant amount and individual provision for bad debts as at December 31, 2019

Debtor name	Book balance	Provision for bad debts	Aging	Proportion of provision (%)	Reason for provision
Anhui Electric Power Company	1,500,000.00	1,500,000.00	Over 5 years	100.00	Expected to be irrecoverable
Total	1,500,000.00	1,500,000.00			

(2) Top 5 of other receivables in terms of ending balance collected by the debtors

Debtor name	Nature of payments	Book balance	Aging	Proportion in total of other receivables (%)	Provision for bad debts
CPI Power Engineering Co., Ltd.	Quality guarantee deposit	62,907,159.08	Within 1 year, 1-3 years	1.62	
Huanghe Hydropower Gonghe Solar Power Generation Co., Ltd.	Quality guarantee deposit	39,983,219.55	1-5 years	1.03	
China Energy Engineering Group Anhui Electric Power Design Institute Co., Ltd.	Quality guarantee deposit	17,090,915.91	1-3 years	0.44	
Shanghai CPI Power Equipment Co., Ltd.	Quality guarantee deposit	14,173,090.88	Within 1 year, 1-2 years	0.36	
State Nuclear Electric Power Planning Design & Research Institute Co., Ltd.	Quality guarantee deposit	13,768,643.72	Within 1 year, 1-2 years	2.84	
Total		147,923,029.14		6.29	

13.3 Long-term equity investments

13.3.1 Classification of long-term equity investments

Item	Balance as at January 1, 2019	Increase in 2019	Decrease in 2019	Balance as at December 31, 2019
Investment in subsidiaries	148,738,294,944.04	18,132,811,964.72	8,390,831,734.74	158,480,275,174.02
Investment in joint ventures				
Investments in associates	798,121,341.10	1,419,782.40	799,541,123.50	
Sub-total	149,536,416,285.14	18,134,231,747.12	9,190,372,858.24	158,480,275,174.02
Less: provision for impairment of long-term equity investment		27,408,574.50	27,408,574.50	
Total	149,536,416,285.14	18,106,823,172.62	9,162,964,283.74	158,480,275,174.02

13.3.2 Details of long-term equity investments

Investees	Investment costs	Balance as at January 1, 2019	Increase or decrease in 2019								Balance as at December 31, 2019	Balance of provision for impairment as at December 31, 2019
			Additional investment	Reduced investment	Investment profit and loss recognized under the equity method	Adjustments to other comprehensive income	Other equity changes	Cash dividends or profits declared and distributed	Provision for impairment	Others		
Total	159,509,753,917.30	149,536,416,285.14	18,132,811,964.72	8,390,831,734.74	1,419,782.40				27,408,574.50	-799,541,123.50	158,480,275,174.02	
1. Subsidiaries	159,509,753,917.30	148,738,294,944.04	18,132,811,964.72	8,390,831,734.74							158,480,275,174.02	
SPIC Northeast Electric Power Co., Ltd.	12,315,612,345.05	12,216,064,997.27	99,547,347.78								12,315,612,345.05	
China Power International Development Limited	9,741,546,407.16	7,184,278,088.22	2,557,268,318.94								9,741,546,407.16	
CPI Henan Electric Power Co., Ltd.	9,404,629,649.69	9,397,791,806.41	15,612,000.00								9,413,403,806.41	
SPIC Aluminum & Power Investment Co., Ltd.	9,224,048,000.00	9,189,590,000.00	34,458,000.00								9,224,048,000.00	
CPI Logistics Co., Ltd.	5,866,039,625.76	5,896,235,573.54		30,195,947.78							5,866,039,625.76	
SPIC Inner Mongolia Energy Co., Ltd.	4,596,619,618.95	4,591,194,318.95	5,425,300.00								4,596,619,618.95	
SPIC Chongqing Electric Power Co., Ltd.	4,432,432,989.52	4,432,240,989.52	192,000.00								4,432,432,989.52	
Jilin Energy Transportation Corporation	3,598,563,396.02	3,598,563,396.02									3,598,563,396.02	
CPI Yunnan International Power Investment Co., Ltd.	3,511,837,255.82	3,426,837,255.82	85,000,000.00								3,511,837,255.82	
SPIC Beijing Electric Power Co., Ltd.	3,001,790,829.85	2,281,790,829.85	720,000,000.00								3,001,790,829.85	
SPIC Sichuan Electric Power Co., Ltd.	2,587,252,400.00	2,187,252,400.00	400,000,000.00								2,587,252,400.00	
SPIC Hebei Electric Power Co., Ltd.	1,767,314,291.09	1,767,314,291.09									1,767,314,291.09	
State Nuclear Capital Holdings Co., Ltd.	883,813,821.47	883,813,821.47									883,813,821.47	
International Finance (Hong Kong) Company Limited	814,464,700.00	330,816,700.00	483,648,000.00								814,464,700.00	

Investees	Investment costs	Balance as at January 1, 2019	Increase or decrease in 2019								Balance as at December 31, 2019	Balance of provision for impairment as at December 31, 2019
			Additional investment	Reduced investment	Investment profit and loss recognized under the equity method	Adjustments to other comprehensive income	Other equity changes	Cash dividends or profits declared and distributed	Provision for impairment	Others		
SPIC Shaanxi New Energy Co., Ltd.	492,681,900.00	415,271,900.00	77,410,000.00	492,681,900.00								
SPIC Tibet Energy Co., Ltd. (Headquarters)	465,547,000.00	465,547,000.00	44,960,000.00	510,507,000.00								
SPIC Heilongjiang New Energy Co., Ltd. (Parent company)	379,177,200.00	12,577,200.00	366,600,000.00								379,177,200.00	
China Power Complete Equipment Co., Ltd	302,062,146.76	302,062,146.76									302,062,146.76	
SPIC Overseas Investment Development Corporation	282,500,000.00	228,500,000.00	54,000,000.00								282,500,000.00	
SPIC Heilongjiang Lvtuo New Energy Co., Ltd. (Parent company)	227,150,000.00	4,800,000.00	222,350,000.00								227,150,000.00	
SPIC Fund Management Co., Ltd.	190,000,000.00	40,000,000.00	150,000,000.00								190,000,000.00	
SPIC Fujian New Energy Co., Ltd.	155,455,200.00	71,341,200.00	84,114,000.00								155,455,200.00	
SPIC Shouyang Clean Energy Co., Ltd.	128,000,000.00	92,000,000.00	36,000,000.00								128,000,000.00	
CPI (Shanghai) Aluminum Co., Ltd.	100,000,000.00	100,000,000.00									100,000,000.00	
SPIC Gansu New Energy Co., Ltd.	80,024,000.00	41,344,000.00	38,680,000.00	80,024,000.00								
China Power Investment Co., Ltd.	58,295,451.00	58,295,451.00									58,295,451.00	
SPIC Pingtan Energy Co., Ltd.	40,000,000.00	40,000,000.00									40,000,000.00	
SPIC Shanxi Clean Energy Co., Ltd.	2,000,000.00	2,000,000.00									2,000,000.00	
SPIC Asset Management Co., Ltd. (Parent company)		92,834,000.00	1,081,400,549.00	1,174,234,549.00								
SPIC Capital		3,809,551,624.26		3,809,551,624.26								

Investees	Investment costs	Balance as at January 1, 2019	Increase or decrease in 2019								Balance as at December 31, 2019	Balance of provision for impairment as at December 31, 2019
			Additional investment	Reduced investment	Investment profit and loss recognized under the equity method	Adjustments to other comprehensive income	Other equity changes	Cash dividends or profits declared and distributed	Provision for impairment	Others		
Holding Co., Ltd.												
Yancheng Thermal Power Co., Ltd.		69,859,700.00		69,859,700.00								
Changxing Island Power Generation		80,803,717.69		80,803,717.69								
State Nuclear Power Technology Corporation	37,201,991,018.14	37,201,991,018.14									37,201,991,018.14	
SPIC Dongfang New Energy Corporation	10,541,911,700.00	799,999,800.00	9,741,911,900.00								10,541,911,700.00	
Huanghe Hydropower Development Co., Ltd.	6,423,819,843.44	6,423,819,843.44									6,423,819,843.44	
Shanghai Electric Power Co., Ltd.	5,530,770,495.20	5,673,743,791.21		142,973,296.01							5,530,770,495.20	
SPIC Jiangxi Electric Power Co., Ltd.	4,727,820,687.12	4,727,820,687.12									4,727,820,687.12	
SPIC Xinjiang Energy and Chemical Industry Co., Ltd.	3,453,040,000.00	3,453,040,000.00									3,453,040,000.00	
SPIC Guizhou Jinyuan Co., Ltd.	3,193,120,000.00	3,193,120,000.00									3,193,120,000.00	
CPI Finance Corporation	2,564,813,810.14	2,564,813,810.14									2,564,813,810.14	
SPIC Mengdong Energy Co., Ltd.	2,295,126,330.76	2,295,126,330.76									2,295,126,330.76	
Guizhou Xidian Power Co., Ltd.	2,127,970,125.97	2,127,970,125.97									2,127,970,125.97	
State Power Investment Corporation Yuanda Environmental Protection Co., Ltd.	1,835,115,468.33	1,835,115,468.33									1,835,115,468.33	
Inner Mongolia Daban Power Generation Co., Ltd.	1,481,720,000.00	1,481,720,000.00									1,481,720,000.00	
SPIC Research Institute of Science and Technology	733,558,872.60	733,558,872.60									733,558,872.60	
Zhongdian United	704,000,000.00	64,000,000.00	640,000,000.00								704,000,000.00	

Investees	Investment costs	Balance as at January 1, 2019	Increase or decrease in 2019								Balance as at December 31, 2019	Balance of provision for impairment as at December 31, 2019
			Additional investment	Reduced investment	Investment profit and loss recognized under the equity method	Adjustments to other comprehensive income	Other equity changes	Cash dividends or profits declared and distributed	Provision for impairment	Others		
Heavy-duty Gas Turbine Technology Co., Ltd.												
Jilin Electric Power Co., Ltd.	455,999,935.65	455,999,935.65									455,999,935.65	
CPI Information Technology Co., Ltd.	234,292,852.81	234,292,852.81									234,292,852.81	
Tongliao No. 2 Power Generation Co., Ltd.	111,590,000.00	111,590,000.00									111,590,000.00	
Jiaxing Rongneng New Technology Investment Partnership	50,000,000.00	50,000,000.00									50,000,000.00	
Diantou Huanghe (Jiaxing) Energy Investment Partnership (Limited Partnership)		2,000,000,000.00		2,000,000,000.00								
SPIC Asset Management Co., Ltd.	1,174,234,549.00		1,174,234,549.00								1,174,234,549.00	
SPIC Xiong'an Energy Co., Ltd.	20,000,000.00		20,000,000.00								20,000,000.00	
2. Associates		798,121,341.10			1,419,782.40				27,408,574.50	-799,541,123.50		
Shanxi Zhangze Power Holding Co., Ltd		798,121,341.10			1,419,782.40				27,408,574.50	-799,541,123.50		

13.4 Operating incomes and operating costs

Item	Year 2019		Year 2018	
	Income	Cost	Income	Cost
1. Subtotal of primary business	3,563,328,757.47	3,274,018,483.65	3,536,286,130.94	3,378,920,968.31
Electric power and service industry	3,563,328,757.47	3,274,018,483.65	3,536,286,130.94	3,378,920,968.31
2. Subtotal of other business	180,641,482.12	113,597,470.36	75,103,030.79	107,459,929.62
Lease of fixed assets	38,594,073.69	31,764,928.98	18,061,130.96	31,764,928.98
Staff training	71,430,850.98	81,832,541.38	54,562,060.24	73,669,979.57
Others	70,616,557.45		2,479,839.59	2,025,021.07
Total	3,743,970,239.59	3,387,615,954.01	3,611,389,161.73	3,486,380,897.93

13.5 Investment income

Source for investment income	Year 2019	Year 2018
Long-term equity investment income calculated under the equity method	1,419,782.40	24,649,828.86
Investment income from disposal of long-term equity investment	7,315,205,654.60	4,821,431,720.51
Investment income acquired from available-for-sale financial assets and others	7,200,000.00	3,657,500.00
Others	2,762,449,907.83	2,220,779,399.56
Total	10,086,275,344.83	7,070,518,448.93

There were no significant restrictions on the remittance back of the investment income of the Company.

13.6 Statement of cash flows

13.6.1 Information on adjusting net profit to cash flows from operating activities

Supplementary information	Year 2019	Year 2018
1. Net profits adjusted to cash flows from operating activities:		
Net profit	6,116,040,788.38	2,007,719,561.29
Plus: provision for assets impairment	27,408,574.50	-65,000.00
Loss from credit impairment		
Depreciation of fixed assets, depletion of oil and gas assets, depreciation of productive biological assets	35,271,481.33	36,247,951.61
Amortization of intangible assets	38,561,621.03	4,521,329.80
Amortization of long-term deferred expenses	2,518,087.99	1,428,261.15

Supplementary information	Year 2019	Year 2018
Loss on disposal of fixed assets, intangible assets and other long-term assets ("-" for gains)	-25,601,243.25	
Loss from write-off of fixed assets ("-" for gains)	63,899.77	242,746.12
Loss from changes in fair value ("-" for gains)		
Financial expenses("-" for gains)	3,252,686,201.17	4,224,430,529.83
Investment loss ("-" for gains)	-10,086,275,344.83	-7,070,518,448.93
Decrease in deferred income tax assets ("-" for increase)		
Increase in deferred income tax liabilities ("-" for decrease)		
Decrease in inventories ("-" for increase)	109,400,649.29	-131,830,194.40
Decrease in operating receivables ("-" for increase)	-1,189,041,425.94	319,033,158.31
Increase in operating payables ("-" for decrease)	-2,393,056,817.54	4,382,537,589.28
Others		
Net cash flow from operating activities	-4,112,023,528.10	3,773,747,484.06
2. Significant investment and financing activities not involving cash deposit and withdrawal:		
Debt transferred into capital		
Convertible corporate bonds maturing within 1 year		
Fixed assets leased from financing:		
3. Net change in cash and cash equivalents:		
Ending balance of cash	1,734,802,021.16	2,006,470,157.62
Less: beginning balance of cash	2,006,470,157.62	1,836,487,590.46
Plus: ending balance of cash equivalents		
Less: beginning balance of cash equivalents		
Net increase in cash and cash equivalents	-271,668,136.46	169,982,567.16

13.6.2 Net cash from acquisition and disposal of subsidiaries in 2019

Item	Amount
I. Cash or cash equivalents paid in 2019 for business combinations occurred in 2019	
Plus: cash or cash equivalents paid in 2019 for business combinations occurred in previous periods	
Net cash paid to acquire subsidiaries	
II. Cash and cash equivalents received in 2019 for disposal of subsidiaries in 2019	1,204,006,127.00
Plus: cash or cash equivalents from disposal of subsidiaries in previous periods but received in 2019	
Net cash received for disposal of subsidiaries	1,204,006,127.00

13.6.3 Breakdowns of cash and cash equivalents

Item	Balance as at December 31, 2019	Balance as at January 1, 2019
I. Cash	1,734,802,021.16	2,006,470,157.62
Including: cash on hand	10,490.35	7,074.79
Unrestricted bank deposits	1,734,761,503.32	2,006,463,082.83
Other unrestricted monetary funds	30,027.49	
Unrestricted deposits in central bank		
Deposits in banks and other financial institutions		
Loans to or from banks and other financial institutions		
II. Cash equivalents		
Including: bond investments maturing within three months		
III. Ending balance of cash and cash equivalents	1,734,802,021.16	2,006,470,157.62

14 Other contents to be disclosed as required by relevant financial and accounting systems

14.1 Matters relating to the issue of shares for purchase of assets by Dongfang New Energy Corporation and related-party transactions thereof in 2019

14.1.1 Overview of this transaction

On July 8, 2019, Dongfang New Energy Corporation deliberated and adopted the Proposals on Report (Draft) on the Issue of Shares for Purchase of Assets by SPIC Dongfang New Energy Corporation and Related-party Transactions Thereof and Its Summary (hereinafter referred to as the "Restructuring Plan") at its 17th meeting of the 6th board of directors.

On August 10, 2019, Dongfang New Energy Corporation obtained the Reply to Issues concerning the Assets Restructuring of SPIC Dongfang New Energy Corporation (GZCQ [2019] No. 375) issued by the State-owned Assets Supervision and Administration Commission of the State Council.

On August 28, 2019, Dongfang New Energy Corporation deliberated and adopted the relevant proposals on restructuring of major assets at the 2nd extraordinary general meeting in 2019.

According to the proposals, Dongfang New Energy Corporation, through issue of shares, purchased the 100% equity of SPIC Capital Holding, which was held by SPIC, China Southern Power Grid Capital, Yunneng Capital, Shanghai State-owned Enterprise Reform Fund and Zhonghao Property, this transaction does not involve the raising of supporting funds.

On December 5, 2019, Dongfang New Energy Corporation obtained the Reply on Approval for the Issue of Shares for Purchase of Assets from SPIC and Others by SPIC Dongfang New Energy Corporation (ZJXK [2019] No. 2660) issued by China Securities Regulatory Commission, approving the issue of shares for purchase of assets and related-party transactions thereof.

On December 31, 2019, Dongfang New Energy signed the Confirmation of Delivery of the Underlying Assets with SPIC, China Southern Power Grid Capital, Yunneng Capital, Shanghai State-owned Enterprise Reform Fund and Zhonghao Property, and completed the transfer of the underlying assets.

14.1.2 Issue of shares for purchase of assets

According to the Restructuring Plan and related approvals, the estimated value of the assets of the SPIC Capital Holding was RMB 15.112 billion, and Dongfang New Energy Corporation, in order to acquire 100.00% equity of the underlying assets, will issue 4.281 billion RMB common shares (A shares) to the SPIC, China Southern Power Grid Capital, Yunneng Capital, Shanghai State-owned Enterprise Reform Fund and Zhonghao Property at the issue price of RMB 3.53 per share. On December 20, 2019, the above issued shares have been verified by BDO CHINA Shu Lun Pan Certified Public Accountants LLP, with a capital verification report [2019] ZG11864 issued.

14.1.3 Delivery of assets

Dongfang New Energy Corporation signed the Confirmation of Delivery of the Underlying Assets with SPIC, China Southern Power Grid Capital, Yunneng Capital, Shanghai State-owned Enterprise Reform Fund and Zhonghao Property, with December 31, 2019 as the delivery date. On December 31, 2019, SPIC Capital Holding completed the industrial and commercial registration of the change in equity, and transferred its 100.00% equity to Dongfang New Energy Corporation. The net assets from book value of underlying assets on the asset delivery date deducting minority equity amounted to RMB 12.455 billion.

14.1.4 Equity arrangements during the transition period

According to the Restructuring Plan, the parties to the restructuring have made the following arrangements with respect to the equity of the underlying assets during the transition period:

(1) Transition period

It refers to the period from the base date of assessment (exclusive) to the delivery date. When calculating the above-mentioned relevant losses or profits, It refers to the period from the base date of assessment (exclusive) to the end of the month in which the delivery is completed.

(2) Equity arrangements during the transition period

The profits or losses of the underlying assets during the transition period will be audited by an audit institution eligible for securities and futures-related business jointly approved by the parties within 60 working days after the delivery date and confirmed by the audit institution with a special audit report issued. The base date of the above-mentioned audit will be the end of the month in which the delivery is completed. During the transition period, the increase or decrease in shareholders' equity of the underlying assets shall be enjoyed or borne by the other party to the transaction in proportion to its current shareholding in the target company.

According to the special audit report (PCPAR [2020] No. ZG10459) issued by BDO CHINA Shu Lun Pan Certified Public Accountants LLP on March 20, 2020, the equity of the underlying assets during the transition period increased by RMB 1.039 billion, and SPIC Capital Holding, the subsidiary of Dongfang New Energy Corporation, is required to make a payment to SPIC, China Southern Power Grid Capital, Yunneng Capital, Shanghai State-owned Enterprise Reform Fund and Zhonghao Property in cash.

14.2 Acquisition of KE Company by Shanghai Electric Power Co., Ltd., a subsidiary of the Company

On December 16, 2016, the Company held its 1st extraordinary general meeting in 2016, approving the signing of the Agreement on the Sale and Purchase of Shares in K-ELECTRICLIMITED held by KESPOWERLTD and related agreements. The Company will purchase in cash the 18,335,542,678 shares in K-ELECTRICLIMITED held by KES Energy (hereinafter referred to as "KE Company"), representing approximately 66.40% of the total issued share capital of KE Company, at a consideration of USD 1.77 billion and total rewards of not more than USD 27 million to the other party or its designated party, depending on the operation status of the target company.

In October 2017, NEPRA announced the review results of the new MYT electricity price mechanism of KE Company, which still failed to meet expectations. The relevant competent authorities of the Pakistani government have formally sent a letter to NEPRA on the result of the review of the new MYT electricity price of KE Company, asking it to reconsider the review result of the electricity price. On December 5, 2017, NEPRA held a review hearing of new MYT electricity price.

NEPRA has announced the MYT after "reconsideration". KE Company has filed a lawsuit against NEPRA's electricity price review decision and has obtained an injunction that new electricity price will not take effect until the lawsuit is completed.

The transaction still has a possibility that the change in the electricity price will affect the profitability of the target company, or the risk that causes the termination of the transaction.

As of the date of this report, the acquisition transaction has not been completed.

15 Approval of financial statements

The financial statements were approved by the Company at the 6th meeting of the 2nd board of directors on April 29, 2020.

State Power Investment Corporation Limited
April 29, 2020

此证仅作为报告书附件使用，不得他用。

统一社会信用代码

91310101568093764U

营业执照

（副本）

证照编号：01000000202002100011

扫描二维码登录“国家企业信用信息公示系统”了解更多登记、备案、许可、监管信息。

名　　称　立信会计师事务所（特殊普通合伙）

类　　型　特殊普通合伙企业

执行事务合伙人　朱建弟，杨志国

经营范围　审查企业会计表报，出具审计报告；验证企业资本，出具验资报告；办理企业合并、分立、清算事宜中的审计业务，出具有关报告；基本建设年度财务决算审计；代理记帐；会计咨询、税务咨询、管理咨询、会计培训；信息系统领域内的技术服务；法律、法规规定的其他业务。
【依法须经批准的项目，经相关部门批准后方可开展经营活动】

成立日期　2011年01月24日

合伙期限　2011年01月24日 至 不约定期限

主要经营场所　上海市黄浦区南京东路61号四楼

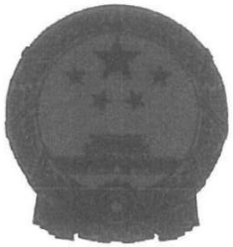
登记机关　上海市黄浦区市场监督管理局

2020 年 02 月 10 日

国家企业信用信息公示系统网址：http://www.gsxt.gov.cn

市场主体应当于每年1月1日至6月30日通过国家企业信用信息公示系统报送公示年度报告。

国家市场监督管理总局监制



会计师事务所

执业证书

名　　称：立信会计师事务所（特殊普通合伙）

首席合伙人：朱建弟

主任会计师：

经营场所：上海市黄浦区南京东路61号四楼

组织形式：特殊普通合伙制

执业证书编号：31000006

批准执业文号：沪财会〔2000〕26号（转制批文 沪财会[2010]82号）

批准执业日期：2000年6月13日（转制日期 2010年12月31日）

证书序号：0001247

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发证机关：上海市财政局

二〇一八年六月一日

中华人民共和国财政部制

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证书序号：000396

会计师事务所
证券、期货相关业务许可证

经财政部、中国证券监督管理委员会审查，批准

立信会计师事务所（特殊普通合伙）

执行证券、期货相关业务。

首席合伙人：朱建弟

证书号：34　　发证时间：二〇二一年七月十日

证书有效期至：二〇二一年七月十日

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