# IMPORTANT NOTICE

**THIS DOCUMENT IS AVAILABLE ONLY TO INVESTORS WHO ARE EITHER (1) QIBs (AS DEFINED BELOW) UNDER RULE 144A OR (2) NON U.S. PERSONS OUTSIDE OF THE UNITED STATES**

**IMPORTANT:** *You must read the following before continuing. If you are not the intended recipient of this message, please do not distribute or copy the information contained in this e-mail, but instead, delete and destroy all copies of this e-mail including all attachments*. The following applies to the offering circular following this page, and you are therefore advised to read this 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 any time you receive any information from us as a result of such access.

NOTHING IN THIS ELECTRONIC TRANSMISSION CONSTITUTES AN OFFER OF SECURITIES FOR SALE IN ANY JURISDICTION WHERE IT IS UNLAWFUL TO DO SO. THE SECURITIES HAVE NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR THE SECURITIES LAWS OF ANY STATE OF THE U.S. OR OTHER JURISDICTION AND THE SECURITIES MAY NOT BE OFFERED OR SOLD WITHIN THE U.S. OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, U.S. PERSONS (AS DEFINED IN REGULATION S UNDER THE SECURITIES ACT), 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.

THE FOLLOWING OFFERING CIRCULAR MAY NOT BE FORWARDED OR DISTRIBUTED TO ANY OTHER PERSON AND MAY NOT BE REPRODUCED IN ANY MANNER WHATSOEVER. ANY FORWARDING, DISTRIBUTION OR REPRODUCTION OF THIS DOCUMENT IN WHOLE OR IN PART IS UNAUTHORIZED. 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 AUTHORIZED AND WILL NOT BE ABLE TO PURCHASE ANY OF THE SECURITIES DESCRIBED THEREIN.

THE SECURITIES MAY NOT BE OFFERED, SOLD OR DELIVERED, DIRECTLY OR INDIRECTLY, IN THE REPUBLIC OF KOREA ("KOREA") OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, ANY RESIDENT OF KOREA (AS SUCH TERM IS DEFINED UNDER THE FOREIGN EXCHANGE TRANSACTIONS ACT OF KOREA AND ITS ENFORCEMENT DECREE), EXCEPT AS OTHERWISE PERMITTED UNDER APPLICABLE KOREAN LAWS AND REGULATIONS.

**Confirmation of your Representation:** In order to be eligible to view the following offering circular or make an investment decision with respect to the securities, investors must be either (I) a Qualified Institutional Buyer ("QIB") (within the meaning of Rule 144A under the Securities Act) or (II) a non-U.S. person (within the meaning of Regulation S under the Securities Act). By accepting the e-mail and accessing the following offering circular, you shall be deemed to have represented to us that (1) you and any customers you represent are either (a) a QIB or (b) a non-U.S. person and that the electronic mail address that you gave us and to which this e-mail has been delivered is not located in the United States, its territories or possessions and (2) you consent to the delivery of such offering circular by electronic transmission.

You are reminded that the following offering circular has been delivered to you on the basis that you are a person into whose possession the following offering circular may be lawfully delivered in accordance with the laws of jurisdiction in which you are located and you may not, nor are you authorized to, deliver or disclose the contents of the following offering circular to any other person. If this is not the case, you must return this offering circular to us immediately.

The materials relating to the offering 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 law. If a jurisdiction requires that the offering be made by a licensed broker or dealer and the initial purchasers or any affiliate of the initial purchasers is a licensed broker or dealer in that jurisdiction, the offering shall be deemed to be made by the initial purchasers or such affiliate on behalf of Korea Southern Power Co., Ltd. in such jurisdiction.

The following offering circular has been sent to you in an electronic form. You are reminded that documents transmitted via this medium may be altered or changed during the process of electronic transmission and consequently, none of BNP Paribas, Citigroup Global Markets Inc., The Hongkong and Shanghai Banking Corporation Limited and UBS AG Hong Kong Branch (collectively, the "Joint Bookrunners") nor any person who controls any of them nor any director, officer, employee nor agent of any of them or affiliate of any such person accepts any liability or responsibility whatsoever in respect of 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 Bookrunners.

You should not reply by e-mail to this transmission, and you may not purchase any securities 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. 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.




# Korea Southern Power Co., Ltd.

*(incorporated with limited liability under the laws of the Republic of Korea)*

## US$400,000,000 3.000% Notes due 2021

The US$400,000,000 3.000% Notes due 2021 (the "Notes") of Korea Southern Power Co., Ltd. ("we" or "us") will mature on January 29, 2021(the "Maturity Date"). The Notes will bear interest at the rate of 3.000% per annum from, and including, January 29, 2018 (the "Issue Date") to, but excluding, the Maturity Date. Interest will be payable in arrears on January 29 and July 29 in each year, commencing July 29, 2018. We may, at our option, redeem all, but not some only, of the Notes at any time at their principal amount plus accrued interest in the event of certain changes in tax law as described under "Terms and Conditions of the Notes — Optional Redemption Due to Changes in Tax Treatment".

The Notes are rated "Aa2" by Moody's Investors Service, Inc. ("Moody's) and "AA-" by Fitch Ratings Ltd ("Fitch"). A rating is not a recommendation to buy, sell or hold securities and may be subject to revision, suspension or withdrawal at any time by the assigning rating organization.

The Notes will constitute our direct, unconditional, unsubordinated and unsecured obligations and shall at all times rank *pari passu* and without any preference or priority among themselves and with all of our other present and future direct, unconditional, unsubordinated and unsecured obligations, except as may be required by mandatory provisions of law.

Approval in-principle has been received from the Singapore Exchange Securities Trading Limited (the "Singapore Stock Exchange") for the listing and quotation of the Notes on the Singapore Stock Exchange. The Singapore Stock Exchange assumes no responsibility for the correctness of any of the statements made, opinions expressed or reports contained in this Offering Circular. Approval in-principle from, admission to the Official List of, and listing and quotation of the Notes on, the Singapore Stock Exchange are not to be taken as an indication of our merits or the merits of the Notes.

**The Notes have not been and will not be registered under the U.S. Securities Act of 1933, as amended (the "Securities Act") or the securities laws of any other jurisdiction, and may not be offered or sold within the United States or to U.S. persons except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. Accordingly, the Notes are being initially offered and sold in the United States only to qualified institutional buyers (as defined in Rule 144A under the Securities Act) and outside the United States to non-U.S. persons in reliance on Regulation S under the Securities Act, in each case, in compliance with applicable laws, regulations and directives. For further details about eligible offerees and resale restrictions, see "Plan of Distribution" and "Transfer Restrictions".**

**Investing in the Notes involves risks. See "Risk Factors" beginning on page 8 to read about certain risk factors you should consider before buying the Notes.**

**Price: 99.727% per Note plus accrued interest, if any, from January 29, 2018.**

Delivery of the Notes in book-entry form will be made on or about January 29, 2018.

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*Joint Bookrunners*

**BNP PARIBAS** **Citigroup**
**HSBC** **UBS**

The date of this Offering Circular is January 22, 2018.

## TABLE OF CONTENTS


| | Page |
|---|---|
| CERTAIN DEFINED TERMS AND CONVENTIONS | iii |
| ENFORCEABILITY OF CIVIL LIABILITIES | iv |
| PRESENTATION OF FINANCIAL INFORMATION | iv |
| FORWARD-LOOKING STATEMENTS | v |
| SUMMARY | 1 |
| THE OFFERING | 2 |
| SUMMARY FINANCIAL AND OTHER INFORMATION | 5 |
| RISK FACTORS | 8 |
| USE OF PROCEEDS | 25 |
| EXCHANGE RATES | 26 |
| CAPITALIZATION | 27 |
| THE KOREAN ELECTRICITY INDUSTRY | 28 |
| SELECTED FINANCIAL AND OTHER INFORMATION | 37 |
| MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS | 40 |
| BUSINESS | 58 |
| MANAGEMENT | 84 |
| TERMS AND CONDITIONS OF THE NOTES | 87 |
| FORM OF THE NOTES | 102 |
| UNITED STATES TAXATION | 104 |
| KOREAN TAXATION | 106 |
| PLAN OF DISTRIBUTION | 109 |
| TRANSFER RESTRICTIONS | 116 |
| LEGAL MATTERS | 120 |
| INDEPENDENT AUDITORS | 120 |
| INDEX TO FINANCIAL STATEMENTS | F-1 |


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**You should rely only on the information contained in this Offering Circular or to which we have referred you. We have not authorized anyone to provide you with information that is different. This Offering Circular may only be used where it is legal to sell these securities. The information in this Offering Circular may only be accurate on the date of this Offering Circular.**

IN CONNECTION WITH THIS OFFERING, TO THE EXTENT PERMITTED BY, AND IN ACCORDANCE WITH, APPLICABLE LAWS AND REGULATIONS, EACH OF BNP PARIBAS, CITIGROUP GLOBAL MARKETS INC., THE HONGKONG AND SHANGHAI BANKING CORPORATION LIMITED AND UBS AG HONG KONG BRANCH (THE "STABILIZING MANAGERS") (OR PERSONS ACTING ON BEHALF OF THE STABILIZING MANAGERS) MAY OVER-ALLOT OR EFFECT TRANSACTIONS WITH A VIEW TO SUPPORTING THE MARKET PRICE OF THE NOTES AT A LEVEL HIGHER THAN THAT WHICH MIGHT OTHERWISE PREVAIL. HOWEVER, THERE IS NO ASSURANCE THAT THE STABILIZING MANAGERS (OR PERSONS ACTING ON BEHALF OF THE STABILIZING MANAGERS) WILL UNDERTAKE STABILIZATION ACTION. ANY STABILIZATION ACTION MAY BEGIN ON OR AFTER THE

DATE ON WHICH ADEQUATE PUBLIC DISCLOSURE OF THE TERMS OF THE OFFER OF THE NOTES 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 NOTES AND 60 DAYS AFTER THE DATE OF THE ALLOTMENT OF THE NOTES.

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**THE NOTES HAVE NOT BEEN REGISTERED UNDER THE FINANCIAL INVESTMENT SERVICES AND CAPITAL MARKETS ACT OF KOREA (THE "FSCMA"). ACCORDINGLY, THE NOTES MAY NOT BE OFFERED, SOLD OR DELIVERED, DIRECTLY OR INDIRECTLY, IN KOREA OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, ANY RESIDENT OF KOREA (AS SUCH TERM IS DEFINED UNDER THE FOREIGN EXCHANGE TRANSACTIONS ACT OF KOREA AND ITS ENFORCEMENT DECREE) OR TO OTHERS FOR RE-OFFERING OR RESALE, EXCEPT AS OTHERWISE PERMITTED UNDER APPLICABLE KOREAN LAWS AND REGULATIONS. IN ADDITION, DURING THE FIRST YEAR AFTER THE ISSUANCE OF THE NOTES, THE NOTES MAY NOT BE TRANSFERRED TO ANY RESIDENT OF KOREA OTHER THAN A "QUALIFIED INSTITUTIONAL INVESTOR" (A "KOREAN QIB," AS DEFINED IN THE REGULATION ON ISSUANCE, PUBLIC DISCLOSURE, ETC. OF SECURITIES OF KOREA) WHO IS REGISTERED WITH THE KOREA FINANCIAL INVESTMENT ASSOCIATION (THE "KOFIA") AS A KOREAN QIB AND SUBJECT TO THE REQUIREMENT OF MONTHLY REPORTS WITH THE KOFIA OF ITS HOLDING OF KOREAN QIB BONDS AS DEFINED IN THE REGULATION ON ISSUANCE, PUBLIC DISCLOSURE, ETC. OF SECURITIES OF KOREA, PROVIDED THAT (A) THE NOTES ARE DENOMINATED, AND THE PRINCIPAL AND INTEREST PAYMENTS THEREUNDER ARE MADE, IN A CURRENCY OTHER THAN KOREAN WON, (B) THE AMOUNT OF THE NOTES ACQUIRED BY SUCH KOREAN QIBS IN THE PRIMARY MARKET IS LIMITED TO LESS THAN 20% OF THE AGGREGATE ISSUE AMOUNT OF THE NOTES, (C) THE NOTES ARE LISTED ON ONE OF THE MAJOR OVERSEAS SECURITIES MARKETS DESIGNATED BY THE FINANCIAL SUPERVISORY SERVICE OF KOREA, OR CERTAIN PROCEDURES, SUCH AS REGISTRATION OR REPORT WITH A FOREIGN FINANCIAL INVESTMENT REGULATOR, HAVE BEEN COMPLETED FOR OFFERING OF THE NOTES IN A MAJOR OVERSEAS SECURITIES MARKET, (D) THE ONE-YEAR RESTRICTION ON OFFERING, DELIVERING OR SELLING OF NOTES TO A KOREAN RESIDENT OTHER THAN A KOREAN QIB IS EXPRESSLY STATED IN THE NOTES, THE RELEVANT PURCHASE AGREEMENT AND OFFERING CIRCULAR AND (E) THE COMPANY AND THE INITIAL PURCHASERS SHALL INDIVIDUALLY OR COLLECTIVELY KEEP THE EVIDENCE OF FULFILLMENT OF CONDITIONS (A) THROUGH (D) ABOVE AFTER HAVING TAKEN NECESSARY ACTIONS THEREFOR.**

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No person has been authorized in connection with any offering of the Notes to give any information or make any representation other than as contained in this Offering Circular and, if given or made, that information or representation must not be relied upon as having been authorized by us or by the Initial Purchasers (as defined in "Plan of Distribution"). This Offering Circular does not constitute an offer to sell or a solicitation of an offer to buy any Notes by any person except in compliance with all applicable laws and regulations. No representation or warranty, express or implied, is made by the Initial Purchasers or any of their affiliates or advisers as to the accuracy or completeness of the information contained in this Offering Circular, and nothing contained in this Offering Circular is, or shall be relied upon as, a promise or representation by the Initial Purchasers

or their affiliates or advisers. Neither the delivery of this Offering Circular nor any sale made in connection with this Offering Circular shall under any circumstances imply that the information in this Offering Circular is correct as of any date subsequent to the date of this Offering Circular or constitute a representation that there has been no change or development reasonably likely to involve a material adverse change in our affairs since the date of this Offering Circular.

We, having made all reasonable inquiries, confirm that this Offering Circular contains all information with respect to us and the Notes which is material in the context of the issue and offering of the Notes, that the information contained in this Offering Circular is true and accurate in all material respects and is not misleading in any material respect, that the opinions and intentions expressed in this Offering Circular are honestly held and have been reached after considering all relevant circumstances and are based on reasonable assumptions, and that there are no other facts, the omission of which would, in the context of the issue and offering of the Notes, make this Offering Circular as a whole or any information or the expression of any opinions or intentions expressed in this Offering Circular misleading in any material respect. We accept responsibility accordingly. Information provided in this Offering Circular with respect to Korea and its political status and economy, has been derived from information published by the Korean government and other public sources, and we accept responsibility only for the accurate extraction of information from such sources.

The Notes have not been registered with or approved or disapproved by the U.S. Securities and Exchange Commission, any state securities commission or other regulatory authority, nor have any of the foregoing authorities passed upon or endorsed the merits of this offering or the accuracy or adequacy of this Offering Circular. Any representation to the contrary is a criminal offense.

This Offering Circular does not constitute, and may not be used for purposes of, an offer, invitation or solicitation by anyone in any jurisdiction or in any circumstances in which such offer, invitation or solicitation is not authorized or to any person to whom it is unlawful to make such offer, invitation or solicitation. The distribution of this Offering Circular and the offering of the Notes in certain jurisdictions may be restricted by law. Persons into whose possession this Offering Circular may come are required by us and the Initial Purchasers to inform themselves about and to observe the relevant restrictions. For a description of certain restrictions on offers and sales of the Notes and distribution of this Offering Circular, see "Plan of Distribution" and "Transfer Restrictions". No action is being taken in any jurisdiction to permit an offering to the general public of Notes or the distribution of this Offering Circular in any jurisdiction where action would be required for those purposes.

In making an investment decision, prospective investors must rely on their own examination of us and the terms of the offering of the Notes, including the merits and risks involved. We are not making any representation to any purchaser of the Notes regarding the legality of an investment in the Notes by such purchaser under any legal investment or similar laws or regulations. The contents of this Offering Circular should not be construed as providing legal, business, accounting or tax advice.

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## CERTAIN DEFINED TERMS AND CONVENTIONS

All references to "we" or "us" herein are references to the Company or to the Company and its subsidiaries, as the context requires. All references to the "Company" herein are references to Korea Southern Power Co., Ltd. All references to "Korea" or the "Republic" herein are references to The Republic of Korea. All references to the "Government" herein are references to the Government of The Republic of Korea.

In this Offering Circular, references to "Won" or "₩" are to the currency of Korea and all references to "U.S. dollars" or "US$" are to the currency of the United States of America. We maintain our accounts in Won. This Offering Circular contains translations of certain Won amounts into U.S. dollars at specified rates solely for the convenience of the reader. These translations should not be construed as representations that the Won amounts actually represent such U.S. dollar amounts or could have been or could be converted into U.S. dollars at any particular rate, or at all. Unless otherwise specified, all conversions of Won into U.S. dollars were made at the base rate under the market average exchange rate system, announced by Seoul Money Brokerage Services, Ltd. in Seoul, between U.S. dollars and Won, rounded to the nearest tenth of one Won (the "Market Average Exchange Rate"). Unless otherwise specified, the translations of Won into U.S. dollars as of and for the year ended December 31, 2016 have been made at the Market Average Exchange Rate in effect on September 30, 2017, which was Won 1,146.7 to US$1.00. The exchange rate between the U.S. dollar and the Won may be highly volatile from time to time and the U.S. dollar amounts referred to in this report should not be relied upon as an accurate reflection of our results of operations. For a discussion of historical information regarding the rate of exchange between Won and the U.S. dollar, see "Exchange Rates."

Any discrepancies in the tables included in this Offering Circular between the listed amounts and totals thereof are due to rounding.

## ENFORCEABILITY OF CIVIL LIABILITIES

We are a corporation with limited liability organized under the laws of Korea. All of our directors and officers and certain other persons named in this Offering Circular reside in Korea, and all or a significant portion of the assets of the directors and officers and certain other persons named in this Offering Circular and substantially all of our assets are located in Korea. As a result, it may not be possible for you to effect service of process within the United States upon such persons or to enforce against them or against us in U.S. courts judgments predicated upon the civil liability provisions of the federal securities laws of the United States. There is doubt as to the enforceability in Korea, either in original actions or in actions for enforcement of judgments of U.S. courts, of civil liabilities predicated on the U.S. federal securities laws.

## PRESENTATION OF FINANCIAL INFORMATION

Our financial information as of and for the years ended December 31, 2014, 2015 and 2016 included in this Offering Circular is derived from our audited consolidated financial statements included elsewhere in this Offering Circular. Such financial statements have been prepared in accordance with the International Financial Reporting Standards as adopted by the Korean Accounting Standards Board ("K-IFRS"), which may differ in certain respects from International Financial Reporting Standards as adopted by the International Accounting Standards Board ("IFRS") or applied in other countries. Our financial information as of and for the nine-month periods ended September 30, 2016 and 2017 included in this Offering Circular is derived from our unaudited consolidated interim financial statements included elsewhere in this Offering Circular. Such financial statements have been prepared in accordance with K-IFRS No. 1034 "Interim Financial Reporting." In making an investment decision, investors must rely upon their own independent examination of us, the terms of this offering and the most recent financial information, including the risks involved. Potential investors should consult their own professional advisers for an understanding of the differences between K-IFRS and IFRS, and how these differences affect the financial information contained in this Offering Circular. This Offering Circular should not be considered as a recommendation by any of the Initial Purchasers that any recipient of this Offering Circular should purchase the Notes.

## FORWARD-LOOKING STATEMENTS

This Offering Circular includes "forward-looking statements," as defined in Section 27A of the Securities Act, and Section 21E of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"), including statements regarding our expectations and projections for future operating performance and business prospects. The words "believe", "expect", "anticipate", "estimate", "project", "will", "aim", "will likely result", "will continue", "intend", "plan", "contemplate", "seek to", "future", "objective", "goal", "should", "will pursue" and similar expressions or variations of these expressions identify forward-looking statements. In addition, all statements other than statements of historical facts included in this Offering Circular, including, without limitation, those regarding our financial position and results, business strategy, plans and objectives of management for future operations, including development plans and objectives relating to our products and services, are forward-looking statements. Such forward-looking statements and any other projections contained in this Offering Circular (whether made by us or any third party) involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements to be materially different from the future results, performance or achievements expressed or implied by forward-looking statements. Such forward-looking statements are based on current beliefs, assumptions, expectations, estimates and projections regarding our present and future business strategies and the environment in which we will operate in the future. Among the important factors that could cause some or all of those assumptions not to occur or cause our actual results, performance or achievements to differ materially from those in the forward-looking statements include, among other things, our ability to successfully implement our business strategy and our safety policies, the condition of and changes in the Korean, Asian or global economies, our growth and expansion, including whether we succeed in our capital investment program to increase our installed capacity, changes in interest rates and exchange rates and changes in government regulation and licensing of our businesses in Korea and in other jurisdictions where we may operate, and the change in the price of electricity sold by us. Additional factors that could cause our actual results, performance or achievements to differ materially include, but are not limited to, those discussed under "Risk Factors". Any forward-looking statements contained in this Offering Circular speak only as of the date of this Offering Circular. Each of we and the Initial Purchasers expressly disclaim any obligation or undertaking to release, publicly or otherwise, any updates or revisions to any forward-looking statement contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions, assumptions or circumstances on which any such statement was based.

## SUMMARY

We were established on April 2, 2001 as one of six Generation Subsidiaries of Korea Electric Power Corporation ("KEPCO"). The Generation Subsidiaries generate over 80% of the electricity in Korea. As of September 30, 2017, we had a domestic generation capacity of 11,264 megawatts, or approximately 9.8% of the total electricity generation capacity in Korea (excluding plants generating electricity primarily for private or emergency use). In 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, we sold 56,727, 46,819, 47,999, 34,538 and 35,793 GWh, respectively, to KEPCO through the KPX. KEPCO is currently the sole electricity transmission and distribution company in Korea.

Total demand for electricity in Korea increased by 0.6% in 2014, 1.3% in 2015 and 2.8% in 2016, in each case, year on year, according to KEPCO, and the consumption of electric power is expected to continue to increase by 2.1% per annum from 2017 to 2031, according to the Government's Eighth Basic Plan. We plan to continue to make substantial capital expenditures to expand our generation capacity and enhance our generating systems in the future, including with respect to the generation of renewable energy.

Based on our "We generate cleaner energy and achieve people's trust" vision, we strive to establish our position as a leader in the electricity generation industry both domestically and internationally by enhancing our operational efficiency, selectively pursuing new business opportunities abroad and effectively responding to increasingly stringent regulations governing the power generation industry. In particular, given a shift in the energy paradigm that focuses on the environment, we are fully committed to increasing the portion of electricity we generate using renewable and alternative energy sources, for example, by continuing to invest in promising IPP and CES projects that focus on renewable energy sources. We aim to increase the production capacity of renewable energy in our product mix to 20% by 2025.

As of September 30, 2017, we had total installed generation capacity of 11,264 megawatts, of which 6,044 megawatts, 200 megawatts, 4,865 megawatts, 105 megawatts and 50 megawatts were attributable to our coal-fired units, oil-fired units, LNG-combined cycle units, oil-combined cycle units and renewable energy units, respectively. We generated sales of Won 6,244 billion, Won 4,333 billion, Won 4,219 billion, Won 2,981 billion and Won 3,372 billion in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively, and our profit for the period was Won 64 billion, Won 221 billion, Won 423 billion, Won 294 billion and Won 187 billion in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively.

We are a corporation incorporated with limited liability under the laws of Korea. Our registered office is located at BIFC B/D, 40 Munhyeongeumyung-ro, Nam-gu, Busan 48400, Korea. Our website address is *http://www.kospo.co.kr*.

## THE OFFERING

*The following is a brief summary of some of the terms of the Notes. For a more detailed description of the terms of the Notes, see "Terms and Conditions of the Notes". Terms used in this summary and not otherwise defined shall have the meanings given to them in "Terms and Conditions of the Notes".*

| | |
|---|---|
| Company | Korea Southern Power Co., Ltd. |
| Offering | US$400,000,000 3.000% Notes due 2021 |
| Issue Price | 99.727% of principal amount of the Notes. |
| Issue Date | January 29, 2018 |
| Maturity Date | January 29, 2021 |
| Ranking | The Notes will constitute our direct, unconditional, unsubordinated and unsecured obligations and shall at all times rank *pari passu* and without any preference or priority among themselves and with all of our other present and future direct, unconditional, unsubordinated and unsecured obligations, except as may be required by mandatory provisions of law. |
| Interest | 3.000% per annum, from, and including, the Issue Date to, but excluding, the Maturity Date, payable semi-annually in arrears. |
| Interest Payment Dates | January 29 and July 29 of each year, commencing on July 29, 2018. For a further description of payments of interest on the Notes, see "Terms and Conditions of the Notes — Payments". |
| Tax Redemption | We may redeem the Notes at our option, in whole but not in part, at their principal amount plus accrued interest to, but excluding, the date fixed for redemption, if we have or would become obligated to pay Additional Amounts in respect of certain Korean taxes imposed in respect of payments of principal of or interest on the Notes. See "Terms and Conditions of the Notes — Optional Redemption Due to Changes in Tax Treatment". |

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| Korean Taxes . . . . . | Payments in respect of the Notes will 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 or levied by or on behalf of Korea or by or within any political subdivision of Korea or any authority or agency of Korea having power to tax, unless the withholding or deduction of such taxes, duties, assessments or governmental charges is required by law. In that event, we will (subject to certain exceptions) pay such Additional Amounts as will result in the holders of the Notes (the "Holders") receiving such amounts as they would have received in respect of such Notes had no such withholding or deduction been required, except in certain circumstances. See "Terms and Conditions of the Notes — Additional Amounts" and "Taxation — Korean Taxation". |
| Denominations and Form . . . . . | The Notes will be deliverable only in registered form and only in denominations in principal amounts of US$200,000 and integral multiples of US$1,000 in excess thereof. The Notes initially offered and sold within the United States to qualified institutional buyers ("QIBs") pursuant to Rule 144A under the Securities Act ("Rule 144A") and outside the United States to non-U.S. persons pursuant to Regulation S under the Securities Act ("Regulation S") will be evidenced by separate Global Notes, in registered form without coupons, and deposited with a custodian for and registered in the name of a nominee of The Depository Trust Company in New York, New York ("DTC"), as depositary. The Notes may not be sold or otherwise transferred except in accordance with the restrictions described under "Transfer Restrictions". |
| Certain Covenants . . . . . | The Notes contain certain limitations on the creation, incurrence, issuance or assumption or the guarantee by us of certain debt secured by mortgage, charge, pledge or other security interest on any of our property or asset and on the consolidation, merger and sale of our assets. The Notes also contain certain limitations on sale and leaseback transactions by us. See "Terms and Conditions of the Notes — Covenants of the Company". |

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| Listing and Trading . . . . . | Approval in-principle has been received from the Singapore Stock Exchange for the listing and quotation of the Notes on the Singapore Stock Exchange. For so long as the Notes are listed on the Singapore Stock Exchange and the rules of the Singapore Stock Exchange so require, the Notes, if traded on the Singapore Stock Exchange, will be traded in a minimum board lot size of S$200,000 or its equivalent in foreign currencies. Accordingly, the Notes, if traded on the Singapore Stock Exchange, will be traded in a minimum board lot size of US$200,000. |
| Governing Law . . . . . | The Notes and the Fiscal Agency Agreement will be governed by, and construed in accordance with, the laws of the State of New York. |
| Fiscal Agent, Principal Paying Agent and Transfer Agent . . . . . | The Bank of New York Mellon will act as the fiscal agent (the "Fiscal Agent"), the principal paying agent and transfer agent under the Fiscal Agency Agreement for the Notes to be dated January 29, 2018. For so long as the Notes are listed on the Singapore Stock Exchange and the rules of the Singapore Stock Exchange so require, in the event that the Global Notes are exchanged for definitive Notes, we will appoint and maintain a paying agent in Singapore, where definitive Notes may be presented or surrendered for payment or redemption. |
| Use of Proceeds . . . . . | The net proceeds from the sale of the Notes, which will be US$397,758,000, after deducting a combined management and underwriting commission but not estimated expenses of the offering, will be used for repayment of certain existing debt and other general corporate purposes. |
| Ratings . . . . . | The Notes are expected to be rated "Aa2" by Moody's and "AA-" by Fitch. Such ratings of the Notes do not constitute a recommendation to buy, sell or hold the Notes and may be subject to revision or withdrawal at any time by the rating organizations. Each such rating should be evaluated independently of any other rating of the Notes or of our other securities. |
| Security Codes . . . . . | Rule 144A ISIN: US50065AAB08<br>Regulation S ISIN: USY4949FAE52<br><br>Rule 144A CUSIP: 50065A AB0<br>Regulation S CUSIP: Y4949F AE5 |

## SUMMARY FINANCIAL AND OTHER INFORMATION

The following tables present summary financial information and other data as of and for the years ended December 31, 2014, 2015 and 2016, and as of and for the nine months ended September 30, 2016 and 2017. The summary financial information and other data set forth below have been derived from and should be read in conjunction with our audited consolidated financial statements and notes thereto as of and for the years ended December 31, 2014, 2015 and 2016, and our unaudited consolidated interim financial statements and notes thereto as of and for the nine months ended September 30, 2016 and 2017 included elsewhere in this Offering Circular.

Our audited consolidated financial statements as of and for the years ended December 31, 2014, 2015 and 2016 have been audited, and our unaudited consolidated interim financial statements as of and for the nine months ended September 30, 2016 and 2017 have been reviewed, by KPMG Samjong Accounting Corp. ("KPMG"), independent auditors, as stated in their reports included elsewhere in this Offering Circular.

| | For the year ended December 31, | | | | For the nine months ended September 30, | | |
|---|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2016[(1)] | 2016 | 2017 | 2017[(1)] |
| | (in billions of Won and millions of U.S. dollars, except per share data) | | | | | | |
| **Statement of Comprehensive Income Data:** | | | | | | | |
| **Sales** | ₩6,244 | ₩4,333 | ₩4,219 | US$3,679 | ₩2,981 | ₩3,372 | US$2,940 |
| Cost of sales | 6,036 | 3,885 | 3,516 | 3,067 | 2,497 | 2,953 | 2,575 |
| **Gross profit** | 208 | 447 | 702 | 612 | 485 | 419 | 365 |
| Selling and administrative expenses | 70 | 77 | 99 | 86 | 63 | 76 | 66 |
| **Operating income** | 138 | 370 | 603 | 526 | 422 | 343 | 299 |
| Other non-operating income | 16 | 13 | 9 | 8 | 5 | 6 | 5 |
| Other non-operating expenses | 1 | 22 | 2 | 2 | 1 | 12 | 11 |
| Other profit (loss), net | (8) | (37) | (18) | (16) | 0 | (10) | (9) |
| Finance income | 25 | 40 | 32 | 28 | 38 | 42 | 36 |
| Finance expenses | 87 | 99 | 86 | 75 | 85 | 105 | 92 |
| Equity method income (loss) of associates | (5) | 0 | (11) | (10) | (2) | (8) | (7) |
| **Profit for the period before tax** | 79 | 265 | 528 | 460 | 378 | 255 | 222 |
| Income tax expense | 15 | 44 | 105 | 92 | 84 | 68 | 59 |
| **Profit for the period** | 64 | 221 | 423 | 368 | 294 | 187 | 163 |
| **Other comprehensive income (loss) for the period, net of tax** | (19) | (0) | (10) | (8) | (15) | (4) | (4) |
| **Total comprehensive income for the period** | ₩45 | ₩221 | ₩412 | US$360 | ₩278 | ₩183 | US$159 |
| **Earnings per share in Won and U.S. dollars** | ₩1,399 | ₩4,839 | ₩9,216 | US$8 | ₩6,415 | ₩3,911 | US$3 |

*Note:*

(1) We maintain our financial statements in Won. The Won financial information as of and for the year ended December 31, 2016 and as of and for the nine months ended September 30, 2017 has been translated into U.S. dollars at the exchange rate of Won 1,146.7 to US$1.00, which was the Market Average Exchange Rate in effect as of September 30, 2017.

| | As of December 31, | | | | As of September 30, | |
|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2016[(1)] | 2017 | 2017[(1)] |
| | (in billions of Won and millions of U.S. dollars) | | | | | |
| **Statement of Financial Position Data:** | | | | | | |
| ***Assets:*** | | | | | | |
| Cash and cash equivalents | ₩11 | ₩182 | ₩320 | US$279 | ₩184 | US$160 |
| Trade and other receivables | 573 | 442 | 552 | 481 | 430 | 375 |
| Inventories | 176 | 145 | 246 | 215 | 261 | 228 |
| Other current assets | 60 | 55 | 138 | 121 | 258 | 225 |
| Non-current financial assets | 39 | 58 | 146 | 127 | 164 | 143 |
| Property, plant and equipment | 7,633 | 8,158 | 8,428 | 7,349 | 8,467 | 7,384 |
| Investments in associates and joint ventures | 172 | 170 | 180 | 157 | 261 | 227 |
| Other non-current assets | 61 | 50 | 56 | 49 | 58 | 51 |
| Total assets | ₩8,725 | ₩9,260 | ₩10,066 | US$8,778 | ₩10,083 | US$8,793 |
| ***Liabilities and shareholder's equity:*** | | | | | | |
| Trade and other payables | ₩576 | ₩336 | ₩529 | US$462 | ₩476 | US$415 |
| Current financial liabilities | 113 | 480 | 771 | 672 | 854 | 745 |
| Income tax payables | 14 | 34 | 103 | 90 | 0 | 0 |
| Other current liabilities | 98 | 89 | 86 | 74 | 103 | 89 |
| Non-current financial liabilities | 4,126 | 4,254 | 4,007 | 3,495 | 3,915 | 3,414 |
| Deferred tax liabilities, net | 249 | 274 | 259 | 226 | 292 | 255 |
| Other non-current liabilities | 74 | 83 | 103 | 90 | 115 | 100 |
| Total liabilities | ₩5,250 | ₩5,550 | ₩5,860 | US$5,109 | ₩5,755 | US$5,019 |
| Total equity | ₩3,475 | ₩3,711 | ₩4,206 | US$3,668 | ₩4,328 | US$3,774 |
| Total liabilities and equity | ₩8,725 | ₩9,260 | ₩10,066 | US$8,777 | ₩10,083 | US$8,793 |

*Note:*

(1) We maintain our financial statements in Won. The Won financial information as of and for the year ended December 31, 2016 and as of and for the nine months ended September 30, 2017 has been translated into U.S. dollars at the exchange rate of Won 1,146.7 to US$1.00, which was the Market Average Exchange Rate in effect as of September 30, 2017.

| | For the year ended December 31, | | | | For the nine months ended September 30, | | |
|---|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2016[1] | 2016 | 2017 | 2017[1] |
| | (in billions of Won and millions of U.S. dollars) | | | | | | |
| **Other Financial Data:** | | | | | | | |
| Net working capital (deficit)[2] ..... | ₩18 | ₩(115) | ₩(233) | US$(203) | ₩(310) | ₩(300) | US$(261) |
| Capital expenditures[3] ..... | ₩1,887 | ₩962 | ₩706 | US$616 | ₩497 | ₩460 | US$401 |
| Depreciation and amortization..... | 482 | 527 | 508 | 443 | 386 | 458 | 399 |
| Net cash flow from operating activities..... | 431 | 646 | 821 | 716 | 797 | 677 | 590 |
| Net cash flow used in investment activities..... | (1,855) | (956) | (707) | (616) | (659) | (773) | (674) |
| Net cash flow provided by (used in) financing activities ..... | 1,373 | 481 | 24 | 21 | (36) | (41) | (36) |
| **Operating data**: | | | | | | | |
| Total power sold (gigawatt hours).... | 56,727 | 46,819 | 47,999 | N/A[4] | 34,538 | 35,793 | N/A[4] |

*Notes:*

(1) The Won financial information as of and for the year ended December 31, 2016 and as of and for the nine months ended September 30, 2017 has been translated into U.S. dollars at the exchange rate of Won 1,146.7 to US$1.00, which was the Market Average Exchange Rate in effect as of September 30, 2017.

(2) Net working capital (deficit) means total current assets minus total current liabilities.

(3) Capital expenditures represent the sum of purchases of property, plant and equipment and intangible assets in our statements of cash flows.

(4) N/A means not applicable.

## Recent Developments

We expect our sales for the fourth quarter of 2017 to decrease by approximately a low- to mid-teens percentage compared to the fourth quarter of 2016 because of a decrease in the adjusted coefficient for the marginal price component of the price of electricity we sell as determined by the Cost Evaluation Committee. See "Risk Factors — We are dependent on fuel imported from overseas suppliers in currencies other than Won under contracts with varying quantity and duration, and rising fuel costs, if not fully passed through to KEPCO, could adversely affect our results of operations." In addition, we expect our operating expenses for the fourth quarter of 2017 to increase compared to the fourth quarter of 2016 due to increases in our fuel costs and depreciation. As a result, we expect that a combination of the above factors will lead to an operating loss and net loss in the fourth quarter of 2017, and accordingly, a significantly lower operating income and net income for the year ended December 31, 2017 compared to the nine months ended September 30, 2017.

## RISK FACTORS

*Prospective purchasers of the Notes should carefully consider all of the information contained in this Offering Circular, including our financial statements and related notes, in addition to the following risk factors. In particular, investors should pay attention to the fact that we are subject to the legal and regulatory environment of Korea, which in many respects differs from that which prevails in other countries.*

### Risks Relating to Our Business

***The Government may adopt policy measures to substantially restructure the Korean electric power industry or our operational structure, which may have a material adverse effect on our business, operations and profitability.***

Since our establishment, the Government has introduced successive policy initiatives to foster efficiency in the Korean electric power industry and has adopted policy measures that have substantially modified our business and operations. However, these policy initiatives have not always been fully implemented as originally planned and in some cases have been amended or replaced by new initiatives, among others, due to economic or policy considerations or a change in administration. There can be no assurance that the initiatives and plans announced by the Government will be implemented as planned or at all, or that the implementation of any such plans will not have a negative effect on our business, results of operations or financial condition.

In June 2016, the Government announced plans to reform state-owned enterprises in the energy and resources development sector, including KEPCO, our parent company, and the electric power industry in general. The Government plan involves, among other things, the gradual liberalization of the electric power industry with respect to the distribution market, as well as the initial public offering of the Generation Subsidiaries, including us, in conjunction with the sale of minority interests (20% to 30%) in such subsidiaries, by 2020. See "The Korean Electricity Industry — Restructuring of the Electricity Industry in Korea."

In May 2017, Moon Jae-In was elected as President of Korea. Soon after assuming office, President Moon vowed to fulfill his campaign promises to reduce fine dust and pollutant emissions and ordered the (i) suspension of coal-fired generation units that have been in service for more than 30 years for the month of June 2017 and staggered, if not suspended, operations of such old coal-fired generation units during the spring season in 2018 and beyond when yellow dust storms are more frequent, (ii) accelerated decommissioning of such old coal-fired generation units and (iii) suspension of construction of new coal-fired generation units and reevaluation of coal-fired generation projects less than 10% into construction. As of September 30, 2017, approximately 53.7% in aggregate of our total installed capacity was attributable to our coal-fired units. As such, the implementation of the above measures may reduce our sales and/or increase our costs, including capital expenditures, relating to our generation of electricity using coal as the main fuel source. Despite the fact that coal-fired units represent a smaller proportion of our total installed capacity compared to some of the other Generation Subsidiaries, continued efforts by the Government to curb the operation of coal-fired units may ultimately have a material adverse effect on our business, results of operations and financial condition.

***Environmental regulations may adversely affect our operations.***

We are required to comply with numerous laws and regulations relating to the protection of the environment and land use in Korea. See "Business—Environment." These laws and regulations are constantly changing. While we believe we are in compliance with applicable environmental laws and regulations in all material respects and that we have obtained all material environmental approvals currently required to own and operate our facilities, we may incur significant costs as a result of these requirements.

In December 2010, the Government adopted the Renewable Portfolio Standard ("RPS"), under which each generation company, including us, is required to supply 10% of the total energy generated from such generation company in the form of renewable energy by 2023, with fines being levied on any generation company failing to do so in the prescribed timeline. While we did not meet the RPS targets during the first two years of implementation in 2012 and 2013 and were levied fines of Won 0.6 billion and Won 6.1 billion, respectively, for non-compliance, we did meet the RPS targets of 3.0% for 2014 and 2015 and 3.5% for 2016. While we intend to increase the proportion of generation capacity from renewable energy relative to generation capacity from non-renewable energy in order to meet our RPS targets, there is no assurance that we will be able to do so quickly enough to meet the RPS targets. While we expect that additional capital expenditures to increase generation capacity from renewable energy will be covered by a corresponding increase in electricity tariff levied on end-users, which will in turn increase the amount payable to us by KEPCO, there is no assurance that the Government will in fact raise the electricity tariff to a level sufficient to fully cover such additional capital expenditures or at all.

In addition, in 2015, the Government implemented a carbon emission trading system in order to reduce the emission of greenhouse gases by 37% from 2030 business-as-usual levels in accordance with the Act on Allocation and Trading of Greenhouse Gas Emission Allowances. Under the Government's emission trading system, the Government allocates emission allowance units to companies in certain industries, including generation companies, and such companies are allowed to emit levels of greenhouse gases based on the number of allowance units that have been allocated to them. If a company emits more than the amount of allowance units that have been allocated to it, the company must purchase additional allowance units on the emission trading system. In 2016, we emitted approximately 34 million tons of carbon equivalents, which was less than the amount of allowance units that had been allocated to us for that year. Adhering to such annual emission reduction targets is expected to result in our incurring significant compliance costs.

In December 2016, the Ministry of Trade, Industry and Energy (the "MOTIE") and the five non-nuclear Generation Subsidiaries, including us, entered into an agreement to reduce fine dust and pollutant emissions from coal-fired generation units. The agreement calls for the Generation Subsidiaries to invest a total of Won 11.6 trillion in pollution reduction equipment in existing and new coal-fired generation units.

Failure to comply with environmental laws and regulations could have a material adverse effect on us, including closure of individual facilities not in compliance, as well as the imposition of civil or criminal liability and the imposition of liens or fines, and expenditures to bring facilities into compliance.

***The Vesting Contract System may not achieve desired benefits when fully implemented.***

On May 20, 2014, the Electricity Business Act was amended, with effect from November 21, 2014, to introduce a vesting contract system to determine the price and quantity of electricity to be sold and purchased through the KPX between the purchaser of electricity (currently, KEPCO) and the sellers of electricity (namely, the Generation Subsidiaries (including us) and independent power producers ("IPPs")). The application of the adjusted coefficient under the cost-based pool system is planned to be gradually replaced by the vesting contract system.

Under the vesting contract system, electricity generators using base load fuels (such as nuclear, coal, hydro and by-product gas) at a particular generation unit will be required to enter into a contract with the purchaser of electricity (currently, KEPCO), which will specify, among other things, the quantity of electricity to be generated and sold from such generation unit and the price at which such electricity will be sold. The contracted quantity will be subject to annual adjustment in consideration of past generation amounts and maintenance and overhaul periods, among others. The contracted price will be subject to monthly adjustment largely depending on fuel price movements, provided that in the event of a drastic change in electricity tariff rates, inflation rate or the general market conditions of electricity supply and demand, the contracted price may be further adjusted on an as-needed basis. Generally, the contractual terms will be subject to prior consultation with the Korea Electricity Commission and approval by the Minister of the MOTIE in order to ensure fair and standardized application of the vesting contract system to all producers of electricity.

In addition to aiming to stabilize the electricity supply market, a key feature of the vesting contract system is to provide a settlement mechanism that is designed to incentivize producers of electricity to supply electricity at or exceeding the contracted quantity. Under this settlement mechanism, an electricity producer is required to settle, among others, the difference between the contracted price and the market price of electricity sold at a given hour through the KPX (namely, the system marginal price), as multiplied by the contracted quantity of electricity. For further details of this settlement mechanism, see "The Korean Electricity Industry — Vesting Contract System."

Under this settlement mechanism, assuming sale of electricity in the contracted quantity and further assuming the system marginal price being higher than the contracted price, the consideration to be received by the seller of electricity net of the settlement amount will effectively amount to the product of the contracted quantity multiplied by the contracted price. If the seller sells a quantity of electricity exceeding the contracted quantity at a given hour, under the settlement mechanism and assuming the system marginal price being higher than the contracted price, the seller is entitled to an extra return (effectively, an incentive) equal to the product of the excess quantity multiplied by the difference between the system marginal price and the contracted price. On the other hand, if the seller sells a quantity of electricity falling short of the contracted quantity at a given hour, under the settlement mechanism and assuming the system marginal price being higher than the contracted price, the seller is required to pay an amount (effectively, a penalty) equal to the product of the shortfall quantity multiplied by the difference between the system marginal price and the contracted price. The foregoing notions of incentive and penalty are intended to minimize the additional cost of purchasing electricity at the higher system marginal price in the event that the seller of electricity fails to deliver the contracted quantity of electricity. Details of the settlement mechanism in the event of the system marginal price being lower than the contracted price have not yet been finalized.

The vesting contract system was introduced principally in order to prevent excessive profit-taking by low-cost producers of electricity using base load fuels (such as nuclear, coal, hydro and by-product gas) by replacing the adjusted coefficient as the basis for determining the guaranteed return to generation companies, as well as to attain the following objectives. First, this system seeks

to increase transactional certainty and stability of electricity supply and purchase by requiring that a relatively long-term (generally one-year) contract be entered into in relation to electricity supply, which had been previously made entirely through what was effectively a spot market. Second, in order to foster responsible management of electricity supply by generation companies, the generation companies will become subject to minimum supply requirements and will be rewarded or penalized depending on whether they meet these requirements. Third, the introduction of standard contractual prices is designed to encourage cost savings and productivity enhancements on the part of the generation companies, which will be rewarded or penalized depending on whether they can supply electricity at such standard contractual prices.

Since the vesting contract system and many of the related details are still being finalized, it presently remains unclear in what final form and when the vesting contract system will actually be fully implemented, whether the vesting contract system will be able to achieve the desired results and whether there will be any adverse unintended consequences from the application of the system. No assurance can be given that such system will not adversely affect our business, results of operation or financial condition in the future. See "The Korean Electricity Industry — Vesting Contract System."

***Our capacity expansion plans, which are based on Government projections on long-term supply and demand of electricity in Korea, may prove to be inadequate.***

We make plans for expanding or upgrading our generation capacity based on the Government's Basic National Energy Plan, as well as the Power Supply and Demand Basic Plan (the "Basic Plan"). The Basic Plan is announced and revised generally every two years by the Government.

In January 2014, the Government announced the Second Basic National Energy Plan, which is a comprehensive plan that covers the entire spectrum of energy industries in Korea, for the period from 2013 to 2035. The Second Basic National Energy Plan focuses on the following six key tasks: (i) shifting the focus of energy policy to demand management with a goal of reducing electricity demand by 15% by 2035, (ii) establishing a geographically decentralized electricity generation system so as to reduce transmission losses with a goal of supplying at least 15% of total electricity through such system by 2035, (iii) applying the latest greenhouse gas emission reduction technologies to newly constructed generation units in order to further promote safety and environmental friendliness, (iv) strengthening exploration and procurement capabilities to enhance Korea's energy security and to ensure stable supply of energy and increasing the portion of electricity supplied from renewable sources to 11% by 2035, (v) reinforcing the system for stable supply of conventional energy, such as oil and gas and (vi) introducing in 2015 an energy voucher system in lieu of a tariff discount system for the benefit of consumers in the low income group. In addition, the Second Basic National Energy Plan revised the target level of nuclear generation capacity in Korea's electricity supply mix to 29%, compared to 41% under the First Basic National Energy Plan announced in 2008.

In December 2017, the Government announced the Eighth Basic Plan for the period from 2017 to 2031, which focuses on, among other things, (i) increasing efforts to address environmental and safety concerns, including reducing greenhouse gas emission and yellow dust, (ii) decreasing the portion of electricity supplied using nuclear and coal energy sources including through suspension of construction of new nuclear power plants, permanent closing of old coal-fired generation units and converting coal-fired generation units into LNG-fired generation units, (iii) increasing the portion of electricity supplied from renewable energy, in particular solar and wind power, and (iv) promoting the replacement of coal with LNG as an energy source by reducing the gap in expenses incurred in using the respective fuel types, for example, by adjusting the consumption tax rates applicable to the respective fuel types. The Eighth Basic Plan as announced replaces and supersedes the Seventh Basic Plan for the period from 2015 to 2029, which focused on, among other things, (i) ensuring a stable

supply of electricity, (ii) increasing the portion of low carbon electricity supply sources, (iii) active consumer demand management, (iv) permanent closing of operations of the Kori #1 nuclear power unit, and (v) diversifying electricity supply sources by utilizing renewable energy sources. We are, as of the date of this Offering Circular, analyzing the potential impact that the implementation of the Eighth Basic Plan may have on our future operations and performance, including with regard to our capital expenditure plans.

We cannot assure you that the Second Basic National Energy Plan, the Eighth Basic Plan or any future plans to be subsequently adopted will successfully achieve their intended goals, the foremost of which is to ensure, through carefully calibrated capacity expansion and other means, balanced overall electricity supply and demand in Korea at affordable rates to end users while promoting efficiency and environmental friendliness in the consumption and production of electricity. If there is a significant variance between the projected electricity supply and demand considered in planning our capacity expansions and the actual electricity supply and demand, or if these plans otherwise fail to meet their intended goals or have other unintended consequences, this may result in inefficient use of our capital, mispricing of electricity and undue financing costs on our part, which may have a material adverse effect on our results of operations, financial condition and cash flows.

***We are dependent on fuel imported from overseas suppliers in currencies other than Won under contracts with varying quantity and duration, and rising fuel costs, if not fully passed through to KEPCO, could adversely affect our results of operations.***

Fuel costs constituted 82.7%, 69.6%, 62.3%, 62.4% and 65.4% of our sales, and 85.5%, 77.7%, 74.8%, 74.6% and 74.7% of our cost of sales, in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively. A substantial amount of our fuel costs are incurred to purchase bituminous coal from sources outside of Korea at prices determined in part by prevailing market prices in currencies other than Won, primarily the U.S. dollar. In addition, we purchase a significant portion of our fuel requirements under contracts with limited quantity and duration. See "Business — Fuel."

Substantially all of our bituminous coal requirements are imported from approximately 23 suppliers located in Indonesia, Australia, Colombia, South Africa and Russia under long-term or spot contracts. Approximately 82%, 64%, 55%, 58% and 52% of our bituminous coal requirements were purchased under long-term contracts in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively, with the remaining requirements being purchased on the spot market. Approximately 48%, 22%, 13%, 9% and 4% of our annual bituminous coal requirements were imported from Indonesia, Australia, Colombia, South Africa and Russia, respectively, in the nine months ended September 30, 2017. We purchase oil through a competitive open bidding process with other bidders, including Korean refiners, based on the spot market price of oil in Singapore. We purchase all of our LNG for our domestic units from Korea Gas Corporation ("KOGAS") under a long-term supply contract.

In recent years, the prices of fuel, including bituminous coal and LNG, have fluctuated significantly. If fuel prices increase sharply within a short span of time, we may be unable to secure requisite fuel supplies at prices that we were able to obtain during prior periods. In addition, any significant interruption or delay in the supply of fuel (bituminous coal and LNG in particular) from any of our suppliers could cause us to purchase fuel on the spot market at prices higher than the prices available under existing supply contracts, resulting in an increase in fuel cost.

While increases in our fuel costs are fully passed through to KEPCO in its purchase of electricity from us under the current cost-based pool system, such pass-through is subject to a two-month time lag, and accordingly, fuel cost increases, including cost increases resulting from the depreciation of the Won against the U.S. dollar or other currencies, could adversely affect our results of operations if the price of electricity payable to us by KEPCO does not timely capture such fuel cost increases for the relevant financial reporting period. Furthermore, in determining the adjusted coefficient for the marginal price component of the price of electricity sold by us to KEPCO by way of KPX, the Cost Evaluation Committee, a committee composed of representatives from the Government, KEPCO and the Generation Subsidiaries, including us, considers various factors, including the market prices of fuels, electricity tariff rates and their impact on the relative fair investment returns for KEPCO and the Generation Subsidiaries, including us, among others. Therefore, in the event of a sustained or rapid rise in fuel costs which impact is not sufficiently offset by a corresponding rise in electricity tariff rates in a timely manner and as a result would significantly hurt KEPCO's profitability, the adjusted coefficient may be set at a level which would have the effect of lowering the fair investment return for the Generation Subsidiaries, including us, and, in turn, the overall profitability of our operations. For instance, in March 2013 the Cost Evaluation Committee imposed a price cap on the marginal price of electricity sold by us to KEPCO. Such price cap has affected those generation units using relatively more expensive fuel types, such as our LNG generation units, which accounted for approximately 43.2% in aggregate of our total installed capacity as of September 30, 2017. We operate a relatively higher proportion of peak load generation units fueled by LNG compared to most of the other Generation Subsidiaries. The price cap has had and may have a material adverse effect on our results of operation and financial condition. See "The Korean Electricity Industry — Power Purchase — Cost-based Pool System — Marginal Price."

***We anticipate substantial capital expenditures, which will require additional debt incurrence in the future.***

We anticipate that substantial capital expenditures will be required in the future for construction of additional generation facilities as discussed in "Business — Capital Investment Program." In 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, we spent Won 1,887 billion, Won 962 billion, Won 706 billion, Won 497 billion and Won 460 billion, respectively, on capital expenditures, which represent the sum of purchases of property, plant and equipment and intangible assets in our statements of cash flows. We have budgeted Won 760 billion (including amounts already expended in 2017), Won 802 billion, Won 873 billion and Won 862 billion for our capital expenditures and investment in associates and joint ventures for 2017, 2018, 2019 and 2020, respectively. The budgeted amounts may vary from the actual amounts of our capital expenditures for a variety of reasons, including changes in the number of units to be constructed and the timing of such construction, changes in rates of exchange between the Won and foreign currencies, changes in interest rates and other factors. For example, in December 2017, the Government announced its plans to increase the portion of renewable energy generated in Korea to 20% of the total energy generated in Korea by 2030, which calls for the Generation Subsidiaries, including us, to make significant investments in the construction and operation of power plants fueled by renewable energy. In preparation for such plans, we have estimated a total of approximately Won 8 trillion to be expended through 2030. Although we plan to fund a majority of our capital expenditures with net cash from operating activities, no assurance can be given that we will be able to do so. We expect that a portion of our future capital expenditures will need to be financed through foreign currency borrowings in the international capital markets, as well as borrowings of Korean Won in the domestic capital market. It is possible that the required financing may not be available to us or that the cost at which such financing may be available may not be acceptable to us. In addition to funding requirements relating to our capital investment program, payments of principal and interest

on indebtedness will require considerable capital resources. If we are unable to obtain debt financing at acceptable rates on a timely basis, or at all, we may be unable to meet our funding requirements or debt repayment obligations, which could have a material adverse impact on our business and results of operations and could lead to a decline in the market value of the Notes.

Recently, in light of the general policy guidelines of the Government for public enterprises (including us) in general to reduce their respective overall debt levels, including by way of disposing of equity interests in unprofitable subsidiaries and other non-core assets, we are currently evaluating ways to reduce our debt levels. We cannot provide assurances that we will be able to successfully reduce debt burdens to a level contemplated by the Government or to a level that would be optimal for our capital structure. If we fail to reduce debt burdens to a level contemplated by the Government or the measures taken by us to reduce debt levels have unintended adverse consequences, such developments may have an adverse effect on our business, results of operation and financial condition.

***The movement of the Won against the U.S. dollar and other currencies may have a material adverse effect on us.***

The Won has fluctuated significantly against major currencies from time to time. Depreciation of the Won against the U.S. dollar and other foreign currencies typically results in a material increase in the cost of fuel and equipment purchased by us from overseas since the prices for substantially all of the fuel and a significant portion of the equipment we purchase are denominated in currencies other than the Won, generally in U.S. dollars. Changes in foreign exchange rates may also impact the cost of servicing our foreign currency-denominated debt. As of September 30, 2017, 7.2% of our sum of debentures (net of discount) and long-term borrowings (including the current portion thereof), before accounting for swap transactions, was denominated in foreign currencies, principally U.S. dollars. In addition, as is the case with LNG purchased from KOGAS, even if we make payments in Won for certain sources of fuel and equipment, some of these sources of fuel may originate from other countries and their prices may be affected accordingly by the exchange rates between the Won and foreign currencies, especially the U.S. dollar. Since substantially all of our sales are denominated in Won, we must generally obtain foreign currencies through foreign currency-denominated financings or from foreign currency exchange markets to make such purchases or service such debt. As a result, any significant depreciation of the Won against the U.S. dollar or other major foreign currencies may have a material adverse effect on our profitability and results of operations.

***Our risk management procedures may not prevent losses in debt and foreign currency positions.***

We manage interest rate exposure in our debt positions by limiting our variable-rate and fixed-rate exposures to percentages of total debt and by monitoring the effects of market changes in interest rates. We also actively manage the risks inherent in our foreign currency positions, which incorporate both our foreign currency-denominated assets and debt. For example, we enter into foreign currency contracts to hedge substantially all of our imported bituminous coal requirements purchased in U.S. dollars, which is our primary foreign currency exposure. In addition, we hedge all of our U.S. dollar debt exposure through foreign currency swap contracts. We measure the potential loss using risk analysis software and enter into derivatives to hedge the exposure when the possible loss reaches a certain percentage of our total capitalization. To the extent we have unhedged positions or our hedging and other risk management procedures do not work as planned, our results of operations and financial condition could be adversely affected.

***Our insurance coverage may not be sufficient.***

We have obtained a general commercial insurance policy to insure against fire and natural disasters up to Won 12,831 billion and mechanical accidents up to Won 4,312 billion. We also have marine cargo insurance in respect of imported fuel and procurement with insurance coverage of US$23 million per shipment, as well as general vehicle insurance. We also maintain directors' and officers' liability insurance.

While we believe that we carry insurance coverage meeting the expected standards in our industry, our insurance and indemnity policies do not cover all of the assets that we own and operate and do not cover all types or amounts of loss which could arise in connection with the ownership and operation of our power plants. We do not maintain insurance for business interruptions, terrorist attacks or war. As a result, significant accidents with damages over our "per occurrence" amount limitations that affect our assets, or other events for which we are not insured, such as an act of terrorism, could have a material adverse impact on our business and results of operations and could lead to a decline in the market value of the Notes. See "Business — Insurance."

***An increase in consumption tax on our fuel sources may have a material adverse effect on our business, operations and profitability.***

In January 2014, largely based on policy considerations of tax equity among different types of fuel sources as well as environmental concerns, the Government announced that, effective July 1, 2014, consumption tax would apply to bituminous coal, which previously was not subject to consumption tax unlike other types of fuel such as LNG and bunker oil. Pursuant to the amended Individual Consumption Tax Act, the base tax rate for bituminous coal, subject to certain adjustments, ranges from Won 21 to Won 33 per kilogram depending on the amount of net heat generation. In contrast, the applicable tax rate for LNG, which is more environment-friendly, is Won 60 per kilogram. In order to address environmental concerns, the Government has been, and is expected to continue, raising the tax rates applicable to certain types of fuel sources to incentivize power producers like us to increase the use of raw materials that are more environment-friendly. For example, in August 2017, the Government raised the tax rate applicable to bituminous coal to up to Won 33 per kilogram, a further increase in the tax rate from Won 24 per kilogram to Won 30 in 2016. It is expected that the Government will further increase the tax rate applicable to bituminous coal by Won 6 per kilogram in April 2018.

Bituminous coal is a significant fuel source for our electricity generation in terms of electricity output, accounting for 21.9%, 36.9%, 42.0%, 42.4% and 57.7% of our entire fuel in 2014, 2015, 2016, and the nine months ended September 30, 2016 and 2017, respectively. We paid Won 103 billion, Won 258 billion, Won 327 billion, Won 233 billion and Won 340 billion in consumption taxes with respect to the use of bituminous coal in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively. While we expect that additional fuel costs due to any further increase in consumption tax on our fuel sources, bituminous coal, oil and LNG in particular, will be covered by a corresponding increase in the system marginal price of electricity sold by us to KEPCO, there is a time lag between our purchase of coal and our sale of electricity, which may adversely affect our cash flow, results of operation and financial condition.

***Labor unrest may adversely affect our operations.***

As of September 30, 2017, approximately 71.2% of our employees were members of the Korea Southern Power Labor Union, which membership comprises entirely of our employees, and approximately 25.8% of our employees were members of the Korean Power Plant Industry Union, of which employees of other non-nuclear Generation Subsidiaries are also members. In 2002, the

Government's plan to restructure and privatize KEPCO's non-nuclear Generation Subsidiaries resulted in a six-week strike by the labor unions of the non-nuclear Generation Subsidiaries to protest the Government's plan. Although the strike did not materially disrupt the supply of electricity or have a material adverse impact on our business and results of operations, and a large-scale strike has not happened since then, we cannot assure you that a large-scale strike will not occur again in the future, that such labor unrest will be satisfactorily resolved or that such labor unrest will not have a material adverse effect on our business or results of operations. While we believe that we have trained a sufficient number of alternative staff and employees to run our operations in the event of a strike, there can be no assurances that this would prove to be successful. Labor unrest may adversely affect our results of operations by disrupting the power supply.

***Our business may be materially and adversely affected by legal claims and regulatory actions against us.***

We are subject to the risk of legal claims and regulatory actions in the ordinary course of business, which may expose us to substantial monetary damages and legal costs, injunctive relief, criminal and civil penalties, sanctions against our management and employees and regulatory restrictions on our operations, as well as reputational harm. See "—We may be exposed to potential claims made by current or previous employees for unpaid wages and may also incur increased labor costs as a result of the expansion of the scope of ordinary wages."

In June 2016, a consortium comprised of three Korean construction companies (Hyundai Engineering & Construction Co., Ltd., GS Engineering & Construction Corp. and Hansol SeenTec Co., Ltd.) contracted by us to engage in the construction of our Samcheok Green Power units (the "Consortium") filed a request for arbitration against us demanding compensation in the amount of Won 350 billion for additional costs incurred by the Consortium due to delays in the construction process. The final result of the arbitration is expected to be announced in April 2018. In December 2016, while the arbitration was pending at the Korean Commercial Arbitration Board, we filed a lawsuit against the Consortium for payment of liquidated damages amounting to Won 160 billion with the Seoul Central District Court. As of September 30, 2017, we have not recognized any provision in connection with the proceedings above. We intend to vigorously defend against the Consortium's claims, but there can be no assurance that the outcome will be favorable to us.

We are unable to predict the final outcome of the proceedings above and other lawsuits, arbitration proceedings and regulatory actions. An adverse determination in any such proceedings may result in monetary damages, regulatory sanctions and financial liability as well as reputational harm to us, which in turn may have a material adverse effect on our business, results of operations and financial condition.

***We may be exposed to potential claims made by current or previous employees for unpaid wages and may also incur increased labor costs as a result of the expansion of the scope of ordinary wages.***

Under the Labor Standards Act and Labor Severance Payment Security Act of Korea, the amount of compensation to which an employee is legally entitled, such as overtime allowance for night shifts or work performed outside of working hours as well as severance pay, is determined by the definition of "ordinary wage."

Prior to the Supreme Court's decision as described below, the Ministry of Labor had released guidelines which recognized base salary and certain fixed monthly allowances as the components of ordinary wage. Pursuant to such guidelines, many companies excluded fixed bonuses paid bimonthly, quarterly or semi-annually from the definition of ordinary wage in calculating overtime allowances, although certain lower courts had held that fixed bonuses, whether paid monthly or not, should be included in the definition of ordinary wage if such bonuses are paid regularly to all employees.

On December 18, 2013, the Supreme Court of Korea delivered a decision which provided a standard rule for determining what kinds of payments should be included as part of ordinary wage. According to this decision, fixed bonuses paid regularly are included in ordinary wage, and any collective bargaining agreement or labor-management agreement which provides for exclusion of such regular bonuses from the scope of ordinary wage is void as such provision is in violation of the mandatory provisions of Korean law. However, with respect to wage agreements executed on or prior to December 18, 2013, the Supreme Court of Korea further ruled that an employee's claim for extra payments will not be granted on principles of good faith if such claim imposes an unexpected financial burden on the employer and results in material managerial difficulty or poses a threat to the existence of the employer, to the extent that such claim is made on the basis of rescission of any existing wage agreement that sets the total amount of wage but excludes regular bonus payments from the scope of ordinary wage.

As of September 30, 2017, we are subject to a number of class action and individual lawsuits involving hundreds of our current and former employees with an aggregate claim amount of Won 48 billion based on claims for unpaid ordinary wages. We have set aside a reserve on a consolidated basis in the aggregate amount of Won 5 billion to cover any potential future payments of additional ordinary wage in relation to the related lawsuits. We cannot presently assure you that there will not be further lawsuits in relation to ordinary wage or that the foregoing reserve amount will be sufficient to cover any additional ordinary wage payments or other compensation and damages arising from the present or future litigation.

***We may face greater competition in the future.***

We compete with other non-nuclear Generation Subsidiaries and, to a lesser extent, with IPPs for the sale of electricity in Korea. The IPPs accounted for 13.8%, 16.8%, 18.5%, 18.5% and 21.4% of total power sold on the KPX in terms of volume in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively. As of September 30, 2017, there were 14 IPPs in Korea based on data from the Independent Power Producer Association.

Under the Electricity Business Act, the Community Energy System ("CES") enables regional districts to source electricity from IPPs without having to undergo the cost-based pool system used by us to distribute electricity nationwide. A supplier of electricity under the CES must be authorized by the Korea Electricity Regulatory Commission (the "KOREC") and be approved by the MOTIE. The purpose of this system is to decentralize electricity supply and thereby reduce transmission costs and improve the efficiency of energy use. These entities do not supply electricity on a national level but are licensed to supply electricity on a limited basis to their respective districts under the CES. As of September 30, 2017, the aggregate generation capacity of suppliers participating in the CES amounted to 6.1% of the total electricity generation capacity in Korea (excluding plants generating electricity primarily for private or emergency use). Wider adoption of the CES would likely erode our market position in the generation of electricity in Korea and may have a material adverse effect on our business, growth, sales and profitability.

While high initial investment costs are an effective barrier to entry for newcomers in the industry, our existing competitors are planning to make substantial investments in expanding their power generation capacity. If such capacity expansion outpaces the general demand for electricity in Korea, the price of electricity in Korea may decrease, which may have a material adverse effect on our results of operations.

***We may not be successful in implementing new business strategies.***

As part of our overall business strategy, we plan to undertake new, or expand existing, projects such as expanding generation capacity under the applicable Basic Plan, strengthening our renewable energy generation capabilities under the RPS initiative and expanding in overseas markets, particularly in the construction and operation of power plants which may lead to increased potential liabilities.

Due to their inherent uncertainties, such new and expanded strategic initiatives expose us to a number of risks and challenges, including the following:

- unanticipated capital expenditures and additional compliance requirements;
- less growth or profit than we currently anticipate with no assurance that such business activities will become profitable;
- failure to identify and enter into alternative business areas in a timely fashion, putting us at a disadvantage vis-a-vis competitors, particularly in overseas markets; and
- failure to hire or retain personnel who are able to supervise and conduct the relevant business activities.

As part of our business strategy, particularly in relation to overseas expansion, fuel sources procurement and renewable energy development, we may also, on a selective basis, seek, evaluate or engage in potential acquisitions, mergers, combinations or other similar opportunities, including with existing or future joint ventures and strategic alliances. The prospects of these initiatives are uncertain, and there can be no assurance that we will be able to successfully implement or grow new ventures, and these ventures may prove more difficult or costly than we presently expect. In addition, we regularly review the profitability and growth potential of our businesses. As a result of such review, we may decide to exit from or reduce the resources that we allocate to new business ventures in the future. There is a risk that these ventures may not achieve profitability or operational efficiencies to the extent that we presently expect and we may fail to recover investments or expenditures we have already made. Any of the foregoing may have a material adverse effect on our reputation, business, financial condition, results of operations and cash flows.

***We plan to pursue international expansion opportunities that may subject us to different or greater risk from those associated with our domestic operations.***

While our operations have, to date, been primarily based in Korea, we plan to expand, on a selective basis, our overseas operations in the future. In particular, we plan to further diversify the geographic focus of our operations from Asia to the rest of the world, including North America. We also plan to expand our project portfolio, which has to date involved technical advice and development of energy fuels, to include the construction and operation of power plants as well as generation

business using biomass and other renewable energy sources pursuant to the Clean Development Mechanism ("CDM"). The CDM is defined in the Kyoto Protocol and allows industrialized countries to meet their emission reduction commitments with reduced impact on their economies by investing in emission reductions wherever it is relatively cheaper and accessible globally.

Overseas operations generally carry risks that are different from those we face in our domestic operations. These risks include:

- challenges of complying with multiple foreign laws and regulatory requirements, including tax laws and laws regulating our operations and investments;
- volatility of overseas economic conditions, including fluctuations in foreign currency exchange rates;
- difficulties in enforcing creditors' rights in foreign jurisdictions;
- risk of expropriation and exercise of sovereign immunity where the counterparty is a foreign government;
- difficulties in establishing, staffing and managing foreign operations;
- differing labor regulations;
- political and economic instability, natural calamities, war and terrorism;
- lack of familiarity with local markets and competitive conditions;
- changes in applicable laws and regulations in Korea that affect foreign operations; and
- obstacles to the repatriation of earnings and cash.

Any failure by us to recognize or respond to these differences may adversely affect the success of our operations in those markets, which in turn could materially and adversely affect our business and results of operations.

**Risks Relating to Korea**

***Unfavorable financial and economic conditions in Korea and globally may have a material adverse impact on our financial condition and results of operations.***

We are incorporated in Korea, where most of our assets are located and most of our income is generated. As a result, we are subject to political, economic, legal and regulatory risks specific to Korea, and our business, results of operations and financial condition are largely dependent on developments relating to the Korean economy. The Korean economy is closely integrated with, and is significantly affected by, developments in the global economy and financial markets.

Due to recent liquidity and credit concerns and volatility in the global financial markets, the value of the Won relative to the U.S. dollar and other foreign currencies and the stock prices of Korean companies have fluctuated significantly in recent years. In particular, the global financial markets continue to experience significant volatility in light of the slowdown of economic growth in China and other major emerging economies as well as concerns regarding the financial difficulties affecting many governments worldwide, including southern Europe and Latin America. In addition, political and social instability in various countries in the Middle East and Northern Africa, including Iraq, Syria

and Egypt, as well as in Ukraine and Russia, have resulted in an increase in volatility in the global financial markets. Accordingly, the overall prospects for the Korean and global economies in 2018 and beyond remain uncertain. Any future deterioration of the Korean or global economy could adversely affect our business, financial condition and results of operations.

Developments that could have an adverse impact on Korea's economy include:

- difficulties in the financial sectors in Europe and elsewhere and increased sovereign default risks in selected countries and the resulting adverse effects on the global financial markets;
- adverse conditions or uncertainty in the economies of countries and regions that are important export markets for Korea, such as China, the United States, Europe and Japan, or in emerging market economies in Asia or elsewhere, as well as increased uncertainty in the wake of a referendum in the United Kingdom in June 2016, in which the majority of voters voted in favor of an exit from the European Union ("Brexit");
- declines in consumer confidence and a slowdown in consumer spending;
- adverse changes or volatility in foreign currency reserve levels, commodity prices (including oil prices), exchange rates (including fluctuation of the U.S. dollar, the euro or Japanese yen exchange rates or revaluation of the Chinese renminbi and the overall impact of Brexit on the value of the Korean Won), interest rates, inflation rates or stock markets;
- the emergence of the Chinese economy, to the extent its benefits (such as increased exports to China) are outweighed by its costs (such as competition in export markets or for foreign investment and the relocation of the manufacturing base from Korea to China), as well as a slowdown of economic growth and financial instability in China;
- the investigations of large Korean conglomerates and their senior management for bribery, embezzlement and other possible misconduct relating to the recent impeachment and dismissal of former President Park Geun-hye;
- increased sovereign default risk in select countries and the resulting adverse effects on the global financial markets;
- a continuing rise in the level of household debt and increasing delinquencies and credit defaults by retail and small- and medium-sized enterprise borrowers in Korea;
- the economic impact of any pending or future free trade agreements;
- social and labor unrest;
- decreases in the market prices of Korean real estate;
- a decrease in tax revenues and a substantial increase in the Government's expenditures for fiscal stimulus measures, unemployment compensation and other economic and social programs that, together, would lead to an increased Government budget deficit;
- financial problems or lack of progress in the restructuring of Korean business groups, other large troubled companies, their suppliers or the financial sector;
- loss of investor confidence arising from corporate accounting irregularities and corporate governance issues concerning certain Korean business groups;

- increases in social expenditures to support an aging population in Korea or decreases in economic productivity due to the declining population size in Korea;

- geo-political uncertainty and risk of further attacks by terrorist groups around the world, including ISIS;

- the occurrence of severe health epidemics in Korea and other parts of the world, including an outbreak of severe acute respiratory syndrome, swine or avian flu, Ebola or the Middle East respiratory syndrome;

- deterioration in economic or diplomatic relations between Korea and its trading partners or allies, including deterioration resulting from trade disputes or disagreements in foreign policy (such as the ongoing controversy between Korea and China regarding the deployment of a Terminal High Altitude Area Defense system in Korea by the United States);

- political uncertainty or increasing strife among or within political parties in Korea;

- natural or man-made disasters that have a significant adverse economic or other impact on Korea (such as the sinking of the Sewol ferry in 2014, which significantly dampened consumer sentiment in Korea) or its major trading partners;

- hostilities or political or social tensions involving Russia and oil producing countries in the Middle East and North Africa, and any material disruption in the global supply of oil or sudden increase in the price of oil; and

- an increase in the level of tensions or an outbreak of hostilities between North Korea and Korea or the United States.

***Escalations in tensions with North Korea could have an adverse effect on us and the market value of the Notes.***

Relations between Korea and North Korea have been tense throughout Korea's modern history. The level of tension between the two Koreas has fluctuated and may increase abruptly as a result of current and future events. In particular, there have been heightened security concerns in recent years stemming from North Korea's nuclear weapon and ballistic missile programs as well as its hostile military actions against Korea. Some of the significant incidents in recent years include the following:

- North Korea renounced its obligations under the Nuclear Non-Proliferation Treaty in January 2003 and conducted six rounds of nuclear tests since October 2006, including claimed detonations of hydrogen bombs, which are more powerful than plutonium bombs, and warheads that can be mounted on ballistic missiles. Over the years, North Korea has also conducted a series of ballistic missile tests, including missiles launched from submarines and intercontinental ballistic missiles that it claims can reach the United States mainland. In response, the Government has repeatedly condemned the provocations and flagrant violations of relevant United Nations Security Council resolutions. In February 2016, the Government also closed the inter-Korea Gaesong Industrial Complex in response to North Korea's fourth nuclear test in January 2016. Internationally, the United Nations Security Council has passed a series of resolutions condemning North Korea's actions and significantly expanding the scope of sanctions applicable to North Korea, most recently in December 2017 in response to North Korea's intercontinental ballistic missile test in November 2017. Over the years, the United States and the European Union have also expanded their sanctions applicable to North Korea.

- In August 2015, two Korean soldiers were injured in a landmine explosion near the Korean demilitarized zone. Claiming the landmines were set by North Koreans, the Korean army re-initiated its propaganda program toward North Korea utilizing loudspeakers near the demilitarized zone. In retaliation, the North Korean army fired artillery rounds on the loudspeakers, resulting in the highest level of military readiness for both Koreas.

- In March 2010, a Korean naval vessel was destroyed by an underwater explosion, killing many of the crewmen on board. The Government formally accused North Korea of causing the sinking, while North Korea denied responsibility. Moreover, in November 2010, North Korea fired more than one hundred artillery shells that hit Korea's Yeonpyeong Island near the Northern Limit Line, which acts as the de facto maritime boundary between Korea and North Korea on the west coast of the Korean peninsula, causing casualties and significant property damage. The Government condemned North Korea for the attack and vowed stern retaliation should there be further provocation.

North Korea's economy also faces severe challenges, which may further aggravate social and political pressures within North Korea.

There can be no assurance that the level of tensions affecting the Korean peninsula will not escalate in the future. Any further increase in tensions, which may occur, for example, if North Korea experiences a leadership crisis, high-level contacts between Korea and North Korea break down or further military hostilities occur, could have a material adverse effect on the Korean economy and on our business, financial condition and results of operations and the price of the Notes, including a downgrade in our credit rating or of the Notes.

***We are subject to Korean accounting, regulatory and corporate governance standards, which differ in significant respects from those in other countries.***

Companies in Korea, including us, are subject to accounting standards which differ in many respects from standards applicable in other countries, including the United States. Our financial statements are prepared in accordance with K-IFRS, which may differ in certain respects from IFRS applied in other countries. In addition, we are subject to corporate governance standards applicable to Korean companies which differ in many respects from standards applicable in other countries. There may also be less publicly available information about Korean companies, such as us, than is regularly made available by public or non-public companies in other countries. Such differences in accounting and corporate governance standards as well as less available public information could result in less than satisfactory corporate governance practices or disclosure to investors.

**Risks Relating to the Notes**

***The Notes are subject to transfer restrictions.***

The Notes will not be registered under the Securities Act or any state securities laws and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons, except to QIBs in reliance on the exemption provided by Rule 144A, to certain persons in offshore transactions in reliance on Regulation S, or, if available, pursuant to another exemption from, or in another transaction not subject to, the registration requirements of the Securities Act and, in each case, in accordance with applicable state securities laws. In addition, subject to the conditions set forth in the Fiscal Agency Agreement (as defined in "Terms and Conditions of the Notes"), a Note may be transferred only if the principal amount of Notes transferred is at least US$200,000. For a further discussion of the transfer restrictions applicable to the Notes, see "Terms and Conditions of the Notes" and "Transfer Restrictions."

The Notes have not been and will not be registered under the Financial Investment Services and Capital Markets Act of Korea (the "FSCMA"). Accordingly, the Notes may not be offered, sold or delivered, directly or indirectly, in Korea or to, or for the account or benefit of, any resident of Korea (as such term is defined under the Foreign Exchange Transactions Act of Korea and its Enforcement Decree), except as otherwise permitted under applicable Korean laws and regulations.

In addition, during the first year after the issuance of the Notes, the Notes may not be transferred to any resident of Korea other than a "qualified institutional buyer" (a "Korean QIB," as defined in the Regulation on Issuance, Public Disclosure, Etc. of Securities of Korea) who is registered with the Korea Financial Investment Association (the "KOFIA") as a Korean QIB and subject to the requirement of monthly reports with the KOFIA of its holding of Korean QIB bonds as defined in the Regulation on Issuance, Public Disclosure, etc. of Securities of Korea, provided that (a) the Notes are denominated, and the principal and interest payments thereunder are made, in a currency other than Korean won, (b) the amount of the Notes acquired by such Korean QIBs in the primary market is limited to less than 20% of the aggregate issue amount of the Notes, (c) the Notes are listed on one of the major overseas securities markets designated by the Financial Supervisory Service of Korea, or certain procedures, such as registration or report with a foreign financial investment regulator, have been completed for offering of the Notes in a major overseas securities market, (d) the one-year restriction on offering, delivering or selling of Notes to a Korean resident other than a Korean QIB is expressly stated in the Notes, the relevant purchase agreement and offering circular and (e) we and the Initial Purchasers shall individually or collectively keep the evidence of fulfillment of conditions (a) through (d) above after having taken necessary actions therefor.

***The Notes are subject to prescription regulations in Korea.***

Failure to exercise a right of action for more than a certain period of time may operate as a bar to exercise of such right. Under Korean laws, claims against the issuer in respect of the payment of principal of notes or bonds are prescribed upon the expiry of ten years, and claims for payment of interest in respect of notes or bonds are prescribed upon the expiry of five years, in each case, from the relevant due date as adjusted by any acceleration or otherwise, in respect thereof. If the Note holders fail to exercise his or her right of payment for more than the period set forth above, the Korean courts may not enforce a claim for payment for principal or interest in respect of the Notes.

***There is no existing trading market for the Notes and, therefore, the Notes offer limited liquidity.***

The Notes constitute a new issue of securities for which there is no existing market. Approval in-principle has been received from the Singapore Stock Exchange for the listing and quotation of the Notes on the Singapore Stock Exchange. The offer and sale of the Notes is not conditioned on obtaining a listing of the Notes on the Singapore Stock Exchange or any other exchange. Although the Initial Purchasers have advised us that they currently intend to make a market in the Notes, they are not obligated to do so, and any market-making activity with respect to the Notes, if commenced, may be discontinued at any time without notice in their sole discretion. For a further discussion of the Initial Purchasers' planned market-making activities, see "Plan of Distribution."

No assurance can be given as to the liquidity of, or the development and continuation of an active trading market for, the Notes. If an active trading market for the Notes does not develop or is not maintained, the liquidity and market price of the Notes may be adversely affected. If such a market were to develop, the Notes could trade at prices that may be higher or lower than the price at which the Notes are issued depending on many factors, including:

- prevailing interest rates;
- our results of operations and financial condition;
- the rate of exchange between Won and the currency of the Notes;
- political and economic developments in and affecting Korea and other regions;
- the market conditions for similar securities; and
- the financial condition and stability of the Korean financial and other sectors.

***The Notes are not protected by restrictive covenants.***

The Notes and the Fiscal Agency Agreement relating to the Notes do not contain restrictive financial or operating covenants or restrictions on the payment of dividends, the incurrence of indebtedness, the sale of assets or the issuance or repurchase of securities by us.

## USE OF PROCEEDS

The net proceeds from the sale of the Notes, which will be US$397,758,000, after deducting a combined management and underwriting commission but not estimated expenses of the offering, will be used for repayment of certain existing debt and other general corporate purposes.

## EXCHANGE RATES

The table below sets forth, for the periods and dates indicated, information concerning the Market Average Exchange Rate, announced by Seoul Money Brokerage Services, Ltd., between Won and U.S. dollars and rounded to the nearest tenth of one Won. No representation is made that the Won or U.S. dollar amounts referred to herein could have been or could be converted into U.S. dollars or Won, as the case may be, at any particular rate or at all.

| Period | At End of Period | Average Rate[(1)] | High | Low |
|---|---|---|---|---|
| | | (Won per US$1.00) | | |
| 2013 | 1,055.3 | 1,095.0 | 1,159.1 | 1,051.5 |
| 2014 | 1,099.2 | 1,053.2 | 1,118.3 | 1,008.9 |
| 2015 | 1,172.0 | 1,131.5 | 1,203.1 | 1,068.1 |
| 2016 | 1,208.5 | 1,160.5 | 1,240.9 | 1,093.2 |
| 2017 | 1,071.4 | 1,130.8 | 1,208.5 | 1,071.4 |
| August | 1,122.8 | 1,130.8 | 1,146.3 | 1,118.0 |
| September | 1,146.7 | 1,131.6 | 1,146.7 | 1,122.7 |
| October | 1,125.0 | 1,131.6 | 1,145.7 | 1,124.7 |
| November | 1,082.4 | 1,105.0 | 1,121.2 | 1,082.4 |
| December | 1,071.4 | 1,085.8 | 1,093.4 | 1,071.4 |
| 2018 (through January 19) | 1,069.4 | 1,066.3 | 1,071.4 | 1,061.3 |

*Source*: Seoul Money Brokerage Services, Ltd.

*Note*:

(1) The average rate for each year is calculated as the average of the Market Average Exchange Rates on each business day during the relevant year (or portion thereof). The average rate for a month is calculated as the average of the Market Average Exchange Rates on each business day during the relevant month (or portion thereof).

## CAPITALIZATION

The following table sets forth our capitalization (1) as derived from our unaudited consolidated interim financial statements as of September 30, 2017 included in this Offering Circular and (2) as adjusted to give effect to the issuance of the Notes offered hereby, before deducting the Initial Purchasers' commission and estimated offering expenses payable by us. The table below should be read in connection with our unaudited consolidated interim financial statements as of September 30, 2017 included in this Offering Circular.

| | As of September 30, 2017 | | | |
|---|---|---|---|---|
| | Actual | | As Adjusted | |
| | (in billions of Won and millions of U.S. dollars)[1] | | | |
| Long-term debt: | | | | |
| Borrowings (excluding current portion) | ₩292 | US$255 | ₩292 | US$255 |
| Debentures (excluding current portion), net of discount | 3,624 | 3,160 | 3,624 | 3,160 |
| Bonds offered hereby | — | — | 459 | 400 |
| Total long-term debt | ₩3,916 | US$3,415 | ₩4,375 | US$3,815 |
| Equity: | | | | |
| Issued capital of ₩5,000 par value; | | | | |
| Authorized — 100,000,000 shares; | | | | |
| Issued and outstanding — 47,739,895 shares | ₩239 | US$208 | ₩239 | US$208 |
| Share premium | 1,615 | 1,408 | 1,615 | 1,408 |
| Retained earnings: | | | | |
| Legal reserves | 66 | 58 | 66 | 58 |
| Voluntary reserves | 1,472 | 1,284 | 1,472 | 1,284 |
| Unappropriated retained earnings | 903 | 787 | 903 | 787 |
| Other components of equity: | | | | |
| Cumulative other comprehensive income | (13) | (11) | (13) | (11) |
| Other equity | (1) | (1) | (1) | (1) |
| Non-controlling interests | 47 | 41 | 47 | 41 |
| Total equity | ₩4,328 | US$3,774 | ₩4,328 | US$3,774 |
| Total capitalization[2][3] | ₩8,244 | US$7,189 | ₩8,703 | US$7,589 |

*Notes:*

(1) The exchange rate used to convert U.S. dollars into Won in the case of the Notes now being issued is Won 1,146.7 to US$1.00, which was the Market Average Exchange Rate in effect as of September 30, 2017.

(2) Total capitalization is defined as total long-term debt plus total equity.

(3) Except as disclosed herein, there has been no material change in our capitalization since September 30, 2017.

## THE KOREAN ELECTRICITY INDUSTRY

### Background

Total demand for electricity in Korea increased by 0.6% in 2014, 1.3% in 2015 and 2.8% in 2016, in each case, year on year, according to KEPCO, and the consumption of electric power is expected to continue to increase by 2.1% per annum from 2017 to 2031, according to the Eighth Basic Plan.

Historically, KEPCO and the Generation Subsidiaries have made substantial expenditures for the construction of power plants and other facilities to meet increased demand for electric power. Subject to the Restructuring Plan as discussed in "— Restructuring of the Electricity Industry in Korea" below, KEPCO and the Generation Subsidiaries plan to continue to make substantial expenditures to expand and enhance their generation, transmission and distribution system in the future.

The Korean electric utility industry traces its origin to the establishment of the first electric utility company in Korea in 1898. On July 1, 1961, the industry was reorganized by the merger of Korea Electric Power Company, Seoul Electric Company and South Korea Electric Company, which resulted in the formation of Korea Electric Company. From 1976 to 1981, the Government acquired the private minority shareholdings in Korea Electric Company. After the Government had acquired all of the outstanding shares of Korea Electric Company, Korea Electric Company dissolved, and KEPCO was incorporated in 1981, assuming the assets and liabilities of Korea Electric Company. KEPCO ceased to be wholly owned by the Government in 1989 when the Government sold 21.0% of its common stock. As of September 30, 2017, the Government owned 51.1% (including indirect holdings by Korea Development Bank, which is wholly owned by the Government) of the outstanding shares of KEPCO's common stock.

The Korea Electric Power Corporation Act requires that the Government own at least 51% of KEPCO's capital stock. Direct or indirect ownership of more than 50% of KEPCO's outstanding common stock enables the Government to control the approval of certain corporate matters which require a stockholders' resolution, including approval of dividends. The rights of the Government and Korea Development Bank as holders of KEPCO's common stock are exercised by the MOTIE in consultation with the Ministry of Strategy and Finance (the "MOSF"). To our knowledge, the Government currently has no plan to cease to own, directly or indirectly, at least 51% of KEPCO's outstanding common stock.

Prior to the corporate reorganization effected on April 2, 2001, which created six generation subsidiaries wholly owned by KEPCO (including us), KEPCO was the principal electricity generation company in Korea. KEPCO continues to be the principal electricity transmission and distribution company in Korea, subject to the implementation of the Restructuring Plan.

### Restructuring of the Electricity Industry in Korea

On January 21, 1999, the MOTIE published a plan to restructure the electricity industry (the "Restructuring Plan"). The overall objectives of the Restructuring Plan were to:

- introduce competition and thereby increase efficiency in the Korean electricity industry,
- ensure a long-term, inexpensive and stable electricity supply, and
- promote consumer convenience through the expansion of consumer choice.

The following is a description of the Restructuring Plan and the Government's position relating to the Restructuring Plan.

***Phase I***

During Phase I, which was the preparation stage for Phase II and lasted from January 1, 1999 to April 2, 2001, KEPCO continued to be the principal electricity generator, with several IPPs supplying electricity to it under existing power purchase agreements. On February 23, 2001, KEPCO's board of directors approved a plan to split its non-nuclear and non-hydroelectric generation capacity into five separate wholly owned generation subsidiaries, namely, Korea South-East Power Co., Ltd. ("KOSEP"), Korea East-West Power Co., Ltd. ("EWP"), Korea Western Power Co., Ltd. ("KOWEPO"), Korea Midland Power Co., Ltd. ("KOMIPO") and us, each with its own management structure, assets and liabilities. KEPCO's hydroelectric and nuclear generation capacity was transferred into a separate wholly owned generation subsidiary, Korea Hydro & Nuclear Power Co., Ltd. ("KHNP"). On March 16, 2001, KEPCO's shareholders approved the plan to establish the Generation Subsidiaries effective as of April 2, 2001.

The Government's objectives in dividing the power generation capacity into separate generation subsidiaries were principally to:

- introduce competition and thereby increase efficiency in the electricity generation industry in Korea, and

- ensure the stable supply of electricity in Korea.

Following the implementation of Phase I, KEPCO retained, until the adoption of the Community Energy System in July 2004, its monopoly position with respect to the transmission and distribution of electricity in Korea.

While KEPCO's ownership percentage of the non-nuclear and non-hydroelectric generation subsidiaries was to be decided by the ultimate form of the Restructuring Plan approved by the Government, to our knowledge, KEPCO plans to continue to retain 100% ownership of both KHNP and the transmission and distribution business.

***Phase II***

Phase II of the Restructuring Plan began on April 2, 2001. For Phase II, the Government introduced a competitive or bidding pool system under which KEPCO purchases power from the Generation Subsidiaries and other companies for transmission and distribution to customers. Such competitive bidding pool system, which is a cost-based system, was established on April 2, 2001. For a further description of the pool system, see "— Power Purchase — Cost-based Pool System" below.

Pursuant to the Electricity Business Act amended on December 23, 2000, the Government established the KPX on April 2, 2001 to deal with the sale of electricity and implement regulations governing the electricity market to allow for electricity distribution through a competitive bidding process. The Government also established the KOREC on April 27, 2001 to regulate the restructured Korean electricity industry and to ensure fair competition. As part of this process, the KPX established the Electricity Market Rules relating to the operation of the bidding pool system. To amend the Electricity Market Rules, the KPX must have the proposed amendment reviewed by the KOREC and then obtain the approval of the MOTIE.

The KOREC's main functions include implementation of necessary standards and measures for electricity market operation and review of matters relating to licensing participants in the Korean electricity industry. The KOREC also acts as an arbitrator in disputes involving utility rates and participants in the Korean electricity industry and consumers and investigates illegal or deceptive activities of the participants in the Korean electricity industry.

***Privatization of Non-nuclear Generation Subsidiaries***

In April 2002, the MOTIE released the basic privatization plan for the five non-nuclear Generation Subsidiaries, including us. KEPCO commenced the process for selling its interest in KOSEP in 2002. According to the original plan, this process was, in principle, to take the form of a sale of management control, potentially supplemented by an initial public offering as a way of broadening the investor base.

***Suspension of the Plan to Form and Privatize Distribution Subsidiaries***

In September 2003, the Tripartite Commission, which included, among others, representatives from the Government and the leading businesses and labor unions in Korea, established the Joint Study Group on Reforming Electricity Distribution Network to propose a methodology of introducing competition within the industry for distribution of electricity. In June 2004, based on a report published by this Joint Study Group, the Tripartite Commission issued a resolution that recommended halting the plan to form and privatize the distribution subsidiaries, and in lieu thereof, creating independent business divisions within KEPCO, namely, the "strategy business units," as a way of improving operational efficiency and internal competition among the district divisions. This resolution was adopted by the MOTIE in June 2004, and KEPCO subsequently commissioned a third party consultant to conduct a study on implementing plans related to the creation of the strategy business units and solicited comments on the study from various parties, including labor unions and the Government. Based on this study and the related comments, in September 2006, KEPCO established nine strategy business units (which, together with KEPCO's other business units, were subsequently restructured into 14 business units in February 2012) having a separate management structure with limited autonomy and separate financial accounting and performance evaluation criteria. Based on whether the strategy business units successfully achieve their intended goals of improving operational efficiency and internal competition, KEPCO may expand the use of strategy business units.

***Introduction of Market-based Public Enterprise System***

On August 25, 2010, the Government announced an electricity industry development plan through which the Government aims to increase efficiency through fostering competition and strengthen the autonomy of public companies. Pursuant to this plan, in December 2010, the MOTIE announced guidelines for a cooperative framework between KEPCO and the Generation Subsidiaries, and in January 2011, the five non-nuclear Generation Subsidiaries formed a "joint cooperation unit" and transferred their pumped-storage hydroelectric business units to KHNP. Furthermore, in January 2011, the six Generation Subsidiaries were officially designated as "market-oriented public enterprises," whereupon the president of each such subsidiary is required to enter into a management contract directly with the minister of the MOTIE, performance evaluation of such subsidiaries is conducted by the Public Enterprise Management Evaluation Commission, and the president and the statutory auditor of each such subsidiary are appointed by the President of Korea while the selection of outside directors is subject to approval by the minister of the MOSF. Previously, the president of

each such subsidiary entered into a management contract with KEPCO's president, performance evaluation of such subsidiaries was conducted by KEPCO's evaluation committee, and the president and the statutory auditor of each such subsidiary were appointed by, and the selection of outside directors was subject to approval by, KEPCO's president.

**Power Purchase**

***Cost-based Pool System***

Since April 2001, the purchase and sale of electricity in Korea is required to be made through the KPX, which is a statutory not-for-profit organization established under the Electricity Business Act responsible for setting the price of electricity, handling the trading and collecting relevant data for the electricity market in Korea. The suppliers of electricity in Korea consist of the Generation Subsidiaries, including us, which were spun-off from KEPCO in April 2001, and IPPs, which numbered 14 as of September 30, 2017 based on data from the Independent Power Producer Association. KEPCO distributes electricity purchased through the KPX to end users.

The price of electricity in the Korean electricity market is determined principally based on the cost of generating electricity using a system known as the "cost-based pool" system, under which the Generation Subsidiaries, including us, fully pass through changes in fuel costs to KEPCO in its purchase through KPX of electricity from the Generation Subsidiaries, including us. Under the cost-based pool system, the price of electricity has two principal components, namely the marginal price (representing, in principle, the variable cost of generating electricity) and the capacity price (representing, in principle, the fixed cost of generating electricity).

*Marginal Price*

The primary purpose of the marginal price is to compensate the generation companies for fuel costs, which represents the principal component of the variable costs of generating electricity. Such marginal price is referred to as the "system marginal price." The concept of marginal price under the cost-based pool system has undergone several changes in recent years in large part due to the sharp fluctuations in fuel prices. For example, prior to December 31, 2006, the marginal price operated on a two-tiered structure, namely, a "base load" marginal price applicable to electricity generated from nuclear fuels and coals, which tend to be less expensive per unit of electricity than electricity generated from LNG, oil and hydroelectric power to which a "non-base load" marginal price applied. The base load marginal price and the non-base load marginal price were generally set at levels so that electricity generated from cheaper fuels could be utilized first while ensuring a relatively fair rate of return to all generation units. However, when the price of coal rose sharply beginning in the second half of 2006, the pre-existing base load marginal price was abolished and a market cap by the name of "regulated market price" was introduced in its stead for electricity generated from base load fuels, with the regulated market price being set at a level higher than the pre-existing base load marginal price in order to compensate the Generation Subsidiaries for the rapid rise in the price of coal. However, when the price of coal continued to rise sharply above the level originally assumed in setting the regulated market price, this had the effect of undercutting KEPCO's profit margin as the purchaser of electricity from the Generation Subsidiaries, although the Generation Subsidiaries were able to maintain a better margin under the regulated market price regime than under the pre-existing base load marginal price regime. Accordingly, on May 1, 2008, the regulated market price regime was abolished, and the current system of "system marginal price" was introduced in order to set the marginal price in a more flexible way by using the concept of an "adjusted coefficient" tailored to each fuel type.

Under the system marginal price regime currently in effect, the marginal price of electricity at which the Generation Subsidiaries sell electricity to KEPCO is determined using the following formula:

Marginal Price = Variable Cost + [System Marginal Price — Variable Cost] * Adjusted Coefficient

The system marginal price represents, in effect, the marginal price of electricity at a given hour at which the projected demand for electricity and the projected supply of electricity for such hour intersect, as determined by the merit order system, which is a system used by the KPX to allocate which generation units will supply electricity for which hour and at what price. The projected demand for electricity for a given hour is determined by the KPX based on a forecast made one day prior to trading, and such forecast takes into account, among others, historical statistics relating to demand for electricity nationwide by day and by hour, after taking into account, among others, seasonality and peak-hour versus non-peak hour demand analysis. The projected supply of electricity at a given hour is determined as the aggregate of the available capacity of all generation units that have submitted bids to supply electricity for such hour. These bids are submitted to the KPX one day prior to trading.

Under the merit order system, the generation unit with the lowest variable cost of producing electricity among all the generation units that have submitted a bid for a given hour is first awarded a purchase order for electricity up to the available capacity of such unit as indicated in its bid. The generation unit with the next lowest variable cost is then awarded a purchase order up to its available capacity in its bid, and so forth, until the projected demand for electricity for such hour is met. The variable cost of the generation unit that is the last to receive the purchase order for such hour is referred to as the system marginal price, which also represents the most expensive price at which electricity can be supplied at a given hour based on the demand and supply for such hour. Generation units whose variable costs exceed the system marginal price for a given hour do not receive purchase orders to supply electricity for such hour. The variable cost of each generation unit is determined by the Cost Evaluation Committee on a monthly basis and reflected in the following month based on the fuel costs as of two months prior to such determination. The final allocation of electricity supply, however, is further adjusted on the basis of other factors, including the proximity of a generation unit to the geographical area to which power is being supplied, network and fuel constraints and the amount of power loss.

The purpose of the merit order system is to encourage generating units to reduce their electricity generation costs by making their generation process more efficient, sourcing fuels from more cost-effective sources or adopting other cost savings programs. The additional adjustment mechanism is designed to improve the overall cost-efficiency in the distribution and transmission of electricity to the end-users by adjusting for losses arising from the distribution and transmission process.

Under the merit order system, the electricity purchase allocation, the system marginal price and the final allocation adjustment are automatically determined based on an objective formula. The adjusted coefficient, the capacity price and the variable costs are determined in advance of trading by the Cost Evaluation Committee. Accordingly, a supplier of electricity cannot exercise control over the merit order system or its operations to such supplier's strategic advantage.

The adjusted coefficient applies uniformly to all generation units that use the same type of fuel, and is generally higher for generation units that use fuel types that inherently entail higher construction and maintenance costs, such as nuclear plants. The adjusted coefficient is determined by the Cost Evaluation Committee in principle on a semi-annual basis, although in exceptional cases driven by external factors such as fuel costs and electricity tariff rates, the adjusted coefficient may

be adjusted on a quarterly basis. In determining the adjusted coefficient, the Cost Evaluation Committee considers various factors, including the market prices of fuels, electricity tariff rates and their impacts on the relative fair investment returns for KEPCO and the Generation Subsidiaries, among others.

In March 2013, the Cost Evaluation Committee imposed a price cap on the system marginal price, which cap affects, in practice, only those generation units using the most expensive fuel types, namely LNG and oil.

*Capacity Price*

In addition to payment in respect of the variable cost of generating electricity, the Generation Subsidiaries receive payment in the form of capacity price, the purpose of which is to compensate them for the costs of constructing generation facilities and to provide incentives for new construction. The capacity price is determined annually by the Cost Evaluation Committee based on the construction costs and maintenance costs of a standard generation unit and is paid to each generation company for the amount of available capacity indicated in the bids submitted the day before trading. From time to time, the capacity price is adjusted in ways to soften the impact of changes in the marginal price over time based on the expected rate of return for the Generation Subsidiaries. Currently, the capacity price is determined using the following formula:

$$\text{Capacity Price} = \text{Reference Capacity Price} * \text{Reserve Capacity Factor} * \text{Time of the Day Capacity Factor} * \text{Fuel Switching Factor}$$

In the nine months ended September 30, 2017, the average capacity price of our generation units was 9.42/kWh.

Effective as of January 1, 2007, a regionally differentiated capacity price system was introduced by setting a standard capacity reserve ratio in the range of 12% to 20% in order to prevent excessive capacity build-up as well as induce optimal capacity investment at the regional level. The capacity reserve ratio is the ratio of peak demand to the total available capacity. Under this system, generation units in a region where available capacity is insufficient to meet demand for electricity as evidenced by a failure to meet the standard capacity reserve ratio receive an increased capacity price. Conversely, generation units in a region where available capacity exceeds demand for electricity as evidenced by satisfaction of the standard capacity reserve ratio receive a reduced capacity price. Other than the foregoing region-based variations, the capacity price generally applies uniformly to all generation units regardless of fuel types used.

***Vesting Contract System***

On May 20, 2014, the Electricity Business Act was amended, with effect from November 21, 2014, to introduce a vesting contract system to determine the price and quantity of electricity to be sold and purchased through the KPX between the purchaser of electricity (currently, KEPCO) and the sellers of electricity (namely, the Generation Subsidiaries (including us) and IPPs). The application of the adjusted coefficient under the cost-based pool system is planned to be gradually replaced by the vesting contract system.

Under the vesting contract system, electricity generators using base load fuels (such as nuclear, coal, hydro and by-product gas) at a particular generation unit will be required to enter into a contract with the purchaser of electricity (currently, KEPCO), which will specify, among other things, the quantity of electricity to be generated and sold from such generation unit and the price at which such

electricity will be sold. The contracted quantity will be subject to annual adjustment in consideration of past generation amounts and maintenance and overhaul periods, among others. The contracted price will be subject to monthly adjustment largely depending on fuel price movements, provided that in the event of a drastic change in electricity tariff rates, inflation rate or the general market conditions of electricity supply and demand, the contracted price may be further adjusted on an as-needed basis. Generally, the contractual terms will be subject to prior consultation with the Korea Electricity Commission (a commission under the MOTIE) and approval by the Minister of the MOTIE in order to ensure fair and standardized application of the vesting contract system to all producers of electricity.

In addition to aiming to stabilize the electricity supply market, a key feature of the vesting contract system is to provide a settlement mechanism that is designed to incentivize producers of electricity to supply electricity at or exceeding the contracted quantity. Under this settlement mechanism, an electricity producer is required to settle, among others, the difference between the contracted price and the market price of electricity sold at a given hour through the KPX (namely, the system marginal price), as multiplied by the contracted quantity of electricity.

The net consideration that the seller of electricity at a particular generation unit is entitled to receive upon sale of the contracted quantity of electricity through the KPX at a given hour is determined using the following formula, assuming the system marginal price is higher than the contracted price:

Net consideration = Gross consideration — Settlement amount, where:

(A) Gross consideration equals the sum of:

  (i) System marginal price * quantity of electricity sold; and

  (ii) Capacity price (as discussed above), as applicable to the particular generation unit; and

(B) Settlement amount equals the sum of:

  (i) (System marginal price — contracted price) * contracted quantity; and

  (ii) Capacity price.

Accordingly, under this settlement mechanism, assuming sale of electricity in the contracted quantity and further assuming the system marginal price being higher than the contracted price, the consideration to be received by the seller of electricity net of the settlement amount will effectively amount to the product of the contracted quantity multiplied by the contracted price. If the seller sells a quantity of electricity exceeding the contracted quantity at a given hour, under the settlement mechanism and assuming the system marginal price being higher than the contracted price, the seller is entitled to an extra return (effectively, an incentive) equal to the product of the excess quantity multiplied by the difference between the system marginal price and the contracted price. On the other hand, if the seller sells a quantity of electricity falling short of the contracted quantity at a given hour, under the settlement mechanism and assuming the system marginal price being higher than the contracted price, the seller is required to pay an amount (effectively, a penalty) equal to the product of the shortfall quantity multiplied by the difference between the system marginal price and the contracted price. The foregoing notions of incentive and penalty are intended to minimize the

additional cost of purchasing electricity at the higher system marginal price in the event that the seller of electricity fails to deliver the contracted quantity of electricity. Details of the settlement mechanism in the event of the system marginal price being lower than the contracted price have not yet been finalized.

The vesting contract system was introduced principally in order to prevent excessive profit-taking by low-cost producers of electricity using base load fuels (such as nuclear, coal, hydro and by-product gas) by replacing the adjusted coefficient as the basis for determining the guaranteed return to generation companies, as well as to attain the following objectives. First, this system seeks to increase transactional certainty and stability of electricity supply and purchase by requiring that a relatively long-term (generally one-year) contract be entered into in relation to electricity supply, which had been previously made entirely through what was effectively a spot market. Second, in order to foster responsible management of electricity supply by generation companies, the generation companies will become subject to minimum supply requirements and will be rewarded or penalized depending on whether they meet these requirements. Third, the introduction of standard contractual prices is designed to encourage cost savings and productivity enhancements on the part of the generation companies, which will be rewarded or penalized depending on whether they can supply electricity at such standard contractual prices.

Since the vesting contract system and many of the related details are still being finalized, it presently remains unclear in what final form and when the vesting contract system will actually be fully implemented, whether the vesting contract system will be able to achieve the desired results and whether there will be any adverse unintended consequences from the application of the system. No assurance can be given that such system will not adversely affect our business, results of operation or financial condition in the future.

**Renewable Portfolio Standard**

In order to expand the utilization of renewable energy resources for generating electrical energy, to reduce greenhouse gas emission and to protect the environment, the Government adopted the RPS in December 2010, under which 10% of all electricity generated by the power generation companies in Korea will be required to be sourced from renewable energy by 2023. Generation companies receive Renewable Energy Certificates ("RECs"), based on a weighted scheme, for energy generated from an eligible renewable energy source, which can be used to satisfy their own RPS requirements or traded on the KPX to other generation companies to satisfy their RPS requirements. Fines are levied on any generation company with generation capacities of 500 MW or more that fails to do so in the prescribed timeline.

**Second Basic National Energy Plan**

On January 13, 2014, the MOTIE adopted the Second Basic National Energy Plan following consultations with representatives from civic groups, the power industry and academia. The Second Basic National Energy Plan, which is a comprehensive plan that covers the entire spectrum of energy industries in Korea, covers the period from 2013 to 2035 (compared to 2008 to 2030 under the First Basic National Energy Plan) and focuses on the following six key tasks: (i) shifting the focus of energy policy to demand management with a goal of reducing electricity demand by 15% by 2035, (ii) establishing a geographically decentralized electricity generation system so as to reduce transmission losses with a goal of supplying at least 15% of total electricity through such system by 2035, (iii) applying latest greenhouse gas emission reduction technologies to newly constructed generation units in order to further promote safety and environmental sensitivities, (iv) strengthening exploration and procurement capabilities to enhance Korea's energy security and to ensure stable supply of energy and

increasing the portion of electricity supplied from renewable sources to 11% by 2035, (v) reinforcing the system for stable supply of conventional energy, such as oil and gas, and (vi) introducing in 2015 an energy voucher system in lieu of a tariff discount system for the benefit of consumers in the low income group. In addition, the Second Basic National Energy Plan has revised the target level of nuclear generation capacity in Korea's electricity supply mix to 29%, compared to 41% under the First Basic National Energy Plan announced in 2008.

**Eighth Basic Plan Relating to the Long-Term Supply and Demand of Electricity**

In December 2017, the Government released the Eighth Basic Plan which serves as the guideline for stable medium- and long-term supply of electric power. The objectives of the Eighth Basic Plan include, among other things, (i) increasing efforts to address environmental and safety concerns, including reducing greenhouse gas emission and yellow dust, (ii) decreasing the portion of electricity supplied using nuclear and coal energy sources including through suspension of construction of new nuclear power plants, permanent closing of old coal-fired generation units and converting coal-fired generation units into LNG-fired generation units, (iii) increasing the portion of electricity supplied from renewable energy, in particular solar and wind power, and (iv) promoting the replacement of coal with LNG as an energy source by reducing the gap in expenses incurred in using the respective fuel types, for example, by adjusting the consumption tax rates applicable to the respective fuel types.

**Plan to Reform State-owned Enterprises in the Energy and Resources Development Sector**

On June 14, 2016, the Government announced broad plans to overhaul state-owned enterprises in the energy and resources development sector, including KEPCO, in response to reported losses and inefficiencies among state-owned enterprises. The Government aimed to streamline overlapping energy and resources development roles and functions among the state-owned enterprises by divesting from businesses not essential to the core purpose for which a stated-owned enterprise was established, while also encouraging competition by gradually opening up the energy and resources development industry to the private sector. With respect to the electric power industry, the plans call for, among other things, (i) KEPCO's divesture of its overseas businesses to the Generation Subsidiaries, (ii) the designation and specialization among the Generation Subsidiaries on the areas of business to pursue overseas, (iii) the gradual liberalization of the electricity distribution market and (iv) the initial public offering of the Generation Subsidiaries, including us, in conjunction with the sale of minority interests (20% to 30%) in such subsidiaries, by 2020.

## SELECTED FINANCIAL AND OTHER INFORMATION

The following tables present selected financial information and other data as of and for the years ended December 31, 2014, 2015 and 2016, and as of and for the nine months ended September 30, 2016 and 2017. The selected financial information and other data set forth below have been derived from and should be read in conjunction with our audited consolidated financial statements and notes thereto as of and for the years ended December 31, 2014, 2015 and 2016, and our unaudited consolidated interim financial statements and notes thereto as of and for the nine months ended September 30, 2016 and 2017 included elsewhere in this Offering Circular.

Our audited consolidated financial statements as of and for the years ended December 31, 2014, 2015 and 2016 have been audited, and our unaudited consolidated interim financial statements as of and for the nine months ended September 30, 2016 and 2017 have been reviewed, by KPMG, independent auditors, as stated in their reports included elsewhere in this Offering Circular.

| | For the year ended December 31, | | | | For the nine months ended September 30, | | |
|---|---|---|---|---|---|---|---|
| | **2014** | **2015** | **2016** | **2016(1)** | **2016** | **2017** | **2017(1)** |
| | **(in billions of Won and millions of U.S. dollars, except per share data)** | | | | | | |
| **Statement of Comprehensive Income Data:** | | | | | | | |
| **Sales** | ₩6,244 | ₩4,333 | ₩4,219 | US$3,679 | ₩2,981 | ₩3,372 | US$2,940 |
| Cost of sales | 6,036 | 3,885 | 3,516 | 3,067 | 2,497 | 2,953 | 2,575 |
| **Gross profit** | 208 | 447 | 702 | 612 | 485 | 419 | 365 |
| Selling and administrative expenses | 70 | 77 | 99 | 86 | 63 | 76 | 66 |
| **Operating income** | 138 | 370 | 603 | 526 | 422 | 343 | 299 |
| Other non-operating income | 16 | 13 | 9 | 8 | 5 | 6 | 5 |
| Other non-operating expenses | 1 | 22 | 2 | 2 | 1 | 12 | 11 |
| Other profit (loss), net | (8) | (37) | (18) | (16) | 0 | (10) | (9) |
| Finance income | 25 | 40 | 32 | 28 | 38 | 42 | 36 |
| Finance expenses | 87 | 99 | 86 | 75 | 85 | 105 | 92 |
| Equity method income (loss) of associates | (5) | 0 | (11) | (10) | (2) | (8) | (7) |
| **Profit for the period before tax** | 79 | 265 | 528 | 460 | 378 | 255 | 222 |
| Income tax expense | 15 | 44 | 105 | 92 | 84 | 68 | 59 |
| **Profit for the period** | 64 | 221 | 423 | 368 | 294 | 187 | 163 |
| **Other comprehensive income (loss) for the period, net of tax** | (19) | (0) | (10) | (8) | (15) | (4) | (4) |
| **Total comprehensive income for the period** | ₩45 | ₩221 | ₩412 | US$360 | ₩278 | ₩183 | US$159 |
| **Earnings per share in Won and U.S. dollars** | ₩1,399 | ₩4,839 | ₩9,216 | US$8 | ₩6,415 | ₩3,911 | US$3 |

*Note:*

(1) We maintain our financial statements in Won. The Won financial information as of and for the year ended December 31, 2016 and as of and for the nine months ended September 30, 2017 has been translated into U.S. dollars at the exchange rate of Won 1,146.7 to US$1.00, which was the Market Average Exchange Rate in effect as of September 30, 2017.

| | As of December 31, | | | | As of September 30, | |
|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2016[(1)] | 2017 | 2017[(1)] |
| | (in billions of Won and millions of U.S. dollars) | | | | | |
| **Statement of Financial Position Data:** | | | | | | |
| ***Assets:*** | | | | | | |
| Cash and cash equivalents | ₩11 | ₩182 | ₩320 | US$279 | ₩184 | US$160 |
| Trade and other receivables | 573 | 442 | 552 | 481 | 430 | 375 |
| Inventories | 176 | 145 | 246 | 215 | 261 | 228 |
| Other current assets | 60 | 55 | 138 | 121 | 258 | 225 |
| Non-current financial assets | 39 | 58 | 146 | 127 | 164 | 143 |
| Property, plant and equipment | 7,633 | 8,158 | 8,428 | 7,349 | 8,467 | 7,384 |
| Investments in associates and joint ventures | 172 | 170 | 180 | 157 | 261 | 227 |
| Other non-current assets | 61 | 50 | 56 | 49 | 58 | 51 |
| Total assets | ₩8,725 | ₩9,260 | ₩10,066 | US$8,778 | ₩10,083 | US$8,793 |
| ***Liabilities and shareholder's equity:*** | | | | | | |
| Trade and other payables | ₩576 | ₩336 | ₩529 | US$462 | ₩476 | US$415 |
| Current financial liabilities | 113 | 480 | 771 | 672 | 854 | 745 |
| Income tax payables | 14 | 34 | 103 | 90 | 0 | 0 |
| Other current liabilities | 98 | 89 | 86 | 74 | 103 | 89 |
| Non-current financial liabilities | 4,126 | 4,254 | 4,007 | 3,495 | 3,915 | 3,414 |
| Deferred tax liabilities, net | 249 | 274 | 259 | 226 | 292 | 255 |
| Other non-current liabilities | 74 | 83 | 103 | 90 | 115 | 100 |
| Total liabilities | ₩5,250 | ₩5,550 | ₩5,860 | US$5,109 | ₩5,755 | US$5,019 |
| Total equity | ₩3,475 | ₩3,711 | ₩4,206 | US$3,668 | ₩4,328 | US$3,774 |
| Total liabilities and equity | ₩8,725 | ₩9,260 | ₩10,066 | US$8,777 | ₩10,083 | US$8,793 |

*Note:*

(1) We maintain our financial statements in Won. The Won financial information as of and for the year ended December 31, 2016 and as of and for the nine months ended September 30, 2017 has been translated into U.S. dollars at the exchange rate of Won 1,146.7 to US$1.00, which was the Market Average Exchange Rate in effect as of September 30, 2017.

| | For the year ended December 31, | | | | For the nine months ended September 30, | | |
|---|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2016[1] | 2016 | 2017 | 2017[1] |
| | (in billions of Won and millions of U.S. dollars) | | | | | | |
| **Other Financial Data:** | | | | | | | |
| Net working capital (deficit)[2] ..... | ₩18 | ₩(115) | ₩(233) | US$(203) | ₩(310) | ₩(300) | US$(261) |
| Capital expenditures[3] ..... | ₩1,887 | ₩962 | ₩706 | US$616 | ₩497 | ₩460 | US$401 |
| Depreciation and amortization..... | 482 | 527 | 508 | 443 | 386 | 458 | 399 |
| Net cash flow from operating activities..... | 431 | 646 | 821 | 716 | 797 | 677 | 590 |
| Net cash flow used in investment activities..... | (1,855) | (956) | (707) | (616) | (659) | (773) | (674) |
| Net cash flow provided by (used in) financing activities ..... | 1,373 | 481 | 24 | 21 | (36) | (41) | (36) |
| **Operating data**: | | | | | | | |
| Total power sold (gigawatt hours).... | 56,727 | 46,819 | 47,999 | N/A[4] | 34,538 | 35,793 | N/A[4] |

*Notes:*

(1) The Won financial information as of and for the year ended December 31, 2016 and as of and for the nine months ended September 30, 2017 has been translated into U.S. dollars at the exchange rate of Won 1,146.7 to US$1.00, which was the Market Average Exchange Rate in effect as of September 30, 2017.

(2) Net working capital (deficit) means total current assets minus total current liabilities.

(3) Capital expenditures represent the sum of purchases of property, plant and equipment and intangible assets in our statements of cash flows.

(4) N/A means not applicable.

## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*The following discussion should be read in conjunction with (i) our audited consolidated financial statements and notes thereto as of and for the years ended December 31, 2014, 2015 and 2016 prepared in accordance with K-IFRS, which may differ in certain respects from IFRS applied in other countries, and (ii) our unaudited consolidated interim financial statements and notes thereto as of and for the three and nine-month periods ended September 30, 2016 and 2017 prepared in accordance with K-IFRS No. 1034 "Interim Financial Reporting," all of which are included elsewhere in this Offering Circular.*

*This discussion contains forward-looking statements that involve risks and uncertainties. Actual results and the timing of events may differ materially from those contained in these forward-looking statements due to a number of factors, including those discussed in the section entitled "Risk Factors" and elsewhere in this Offering Circular.*

### Overview

We were established on April 2, 2001 as one of six Generation Subsidiaries of KEPCO. The Generation Subsidiaries generate over 80% of the electricity in Korea. As of September 30, 2017, we had a domestic generation capacity of 11,264 megawatts, or approximately 9.8% of the total electricity generation capacity in Korea (excluding plants generating electricity primarily for private or emergency use). In 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, we sold 56,727, 46,819, 47,999, 34,538 and 35,793 GWh of electricity, respectively, to KEPCO through the KPX. KEPCO is currently the sole electricity transmission and distribution company in Korea.

As of September 30, 2017, we had total installed generation capacity of 11,264 megawatts, of which 6,044 megawatts, 200 megawatts, 4,865 megawatts, 105 megawatts and 50 megawatts were attributable to our coal-fired units, oil-fired units, LNG-combined cycle units, oil-combined cycle units and renewable energy units, respectively.

We generated sales of Won 6,244 billion, Won 4,333 billion, Won 4,219 billion, Won 2,981 billion and Won 3,372 billion in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively, and our profit for the period was Won 64 billion, Won 221 billion, Won 423 billion, Won 294 billion and Won 187 billion in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively.

The overall margin for our operations is affected in part by the fair investment return assigned to us (at a uniform rate for all of KEPCO's generation subsidiaries) by the Cost Evaluation Committee after fully passing through changes in fuel prices to KEPCO subject to a two-month lag. Considerations of our fair investment return are made by the Cost Evaluation Committee in determining the adjusted coefficient for the marginal price component of the price of electricity sold by us to KEPCO by way of KPX. In determining such coefficient, the Cost Evaluation Committee considers various factors, including the market prices of fuels, electricity tariff rates and their impacts on the relative fair investment returns for KEPCO and its generation subsidiaries, among others. Therefore, in the event of a sustained or rapid rise in fuel costs whose impact is not sufficiently offset by a corresponding rise in electricity tariff rates in a timely manner or in cases of other exceptional circumstances, the adjusted coefficient may be set at a level which would have the effect of lowering our fair investment return and, in turn, the overall profitability of our operations. See "The Korean Electricity Industry — Power Purchase — Cost-based Pool System — Marginal Price."

In March 2013 the Cost Evaluation Committee imposed a price cap on the marginal price of electricity sold by us to KEPCO. Such price cap has affected our LNG generation units, which accounted for approximately 43.2% in aggregate of our total installed capacity as of September 30, 2017. The price cap has had and may have a material adverse effect on our results of operation and financial condition.

Since our inception, we, along with KEPCO and the other Generation Subsidiaries, have made substantial expenditures for the construction of generation plants and other facilities to meet increased demand for electric power. According to the Eighth Basic Plan released in December 2017, the consumption of electric power is expected to increase by 2.1% per annum from 2017 to 2031. Pursuant to the Eighth Basic Plan, we plan to continue to make expenditures to expand and enhance our generating system in the future. In March 2014, we commenced commercial operations of an LNG-combined cycle unit in Andong with an installed capacity of 417 megawatts. In addition, we commenced commercial operations of Samcheok Green Power units no. 1 and 2, each of which is a high-efficiency coal-fired unit with an installed capacity of 1,022 megawatts, in December 2016 and June 2017, respectively. These were our main capital expenditure projects in the past three years.

**Critical Accounting Policies**

Accounting estimates are an integral part of the financial statements prepared by our management and are based upon our management's current judgments. See Note 4 of our audited consolidated financial statements as of and for the years ended December 31, 2015 and 2016 and Note 3 of our unaudited consolidated interim financial statements as of September 30, 2017 and for the three-month and nine-month periods ended September 30, 2016 and 2017 included elsewhere in this Offering Circular for summaries of our significant accounting policies that are critical to the portrayal of our financial condition since they require our management to make difficult, complex or subjective judgments, some of which may relate to matters that are inherently uncertain, and because of the possibility that future events affecting these estimates may differ significantly from management's current judgment. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting the estimate may differ significantly from management's current judgments. We believe the following represents our critical accounting policies.

***Useful Lives of Property, Plant and Equipment***

Property, plant and equipment are initially measured at cost, and subsequently carried at cost less accumulated depreciation and accumulated impairment losses. We do not depreciate land. Depreciation is computed by the straight-line method, using rates based on the estimated useful lives. Net book value of our property, plant and equipment as of September 30, 2017 totaled Won 8,467 billion representing 84.0% of total assets. Given the significance of property, plant and equipment and the associated depreciation expense to our financial statements, the determination of an asset's economic useful life is considered to be a critical accounting estimate.

Economic useful life is the duration of time that appropriately reflects the pattern in which the asset's future economic benefits are expected to be consumed. Management's assumptions on the following factors, among others, affect the determination of estimated economic useful life: wear and tear, obsolescence, technical standards, changes in market demand and technological changes. We apply the following useful lives for our property, plant and equipment:

| | Method | Estimated Useful Life |
|---|---|---|
| Buildings | Straight-line | 8-30 |
| Structures | Straight-line | 8-30 |
| Machinery | Straight-line | 2-30 |
| Ships | Straight-line | 9 |
| Vehicles | Straight-line | 4 |
| Equipment | Straight-line | 4 |
| Tools | Straight-line | 4 |
| Finance Lease Assets | Straight-line | 24 |
| Others | Straight-line | 15 |

Generally, useful life is estimated at the time the asset is acquired and is based on historical experience with similar assets and takes into account anticipated technological or other changes. If technological changes were to occur more rapidly than anticipated or in a different form than anticipated, or the assets experienced unexpected levels of wear and tear, the useful lives assigned to these assets may need to be shortened, resulting in the recognition of increased depreciation expenses in future periods.

An impairment loss is recognized when the expected estimated undiscounted future net cash flows from the use of the asset and its eventual disposition are less than its carrying amount. Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal against the carrying amount of the asset, and are recognized in profit or loss.

Depreciation methods, useful lives and residual values are reviewed at the end of each reporting period and are adjusted, if appropriate.

***Impairment of Non-Financial Assets***

At the end of each reporting period, we review the carrying amounts of our non-financial assets, other than assets arising from employee benefits, inventories, deferred tax assets and non-current assets held for sale, to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Goodwill, irrespective of whether there is any indication of impairment, is tested for impairment annually by comparing their recoverable amount to their carrying amount.

Where it is not possible to estimate the recoverable amount of an individual asset, we estimate the recoverable amount of the cash-generating unit to which the asset belongs. A cash-generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or group of assets.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows from the asset are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted. An impairment loss is recognized if the recoverable amount of an asset (or a cash-generating unit) is estimated to be less than its carrying amount.

Where an impairment loss subsequently reverses, typically due to a change in the estimates used to determine the recoverable amount, the carrying amount of the asset (or a cash-generating unit) is increased to the revised estimate of its recoverable amount, but only to the extent that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset (or the cash-generating unit) in prior years. Impairment losses in respect of goodwill are never reversed.

The assessment of impairment is a critical accounting estimate because significant management judgment is required to determine: (i) if an indicator of impairment has occurred, (ii) how assets should be grouped, and (iii) if an impairment exists, the recoverable amount of the asset or asset group. If management's assumptions about these assets change as a result of events or circumstances, and management believes the assets may have declined in value, we may record impairment charges, resulting in lower profits. Management uses its best estimate in making these evaluations and considers various factors, including the future prices of energy, fuel costs and other operating costs. However, actual market prices and operating costs could vary from those used in the impairment evaluations, and the impact of such variations could be material.

***Financial Assets — Measurement and Impairment***

Our financial assets at fair value through profit or loss are measured at fair value. A financial asset is impaired if objective evidence indicates that a loss event has occurred after the initial recognition of the asset, and that the loss event had a negative effect, which can be reliably estimated, on the estimated future cash flows of that asset. Losses expected as a result of future events, regardless of likelihood, however, are not recognized. We assess the value of our financial assets at the end of each reporting period to determine whether there has been such objective evidence of impairment.

Our financial assets at fair value through profit or loss are measured at fair value, and changes therein are recognized in profit or loss. Our held-to-maturity investments, subsequent to initial recognition, are measured at amortized cost using the effective interest method. Our loans and receivables are also measured at amortized cost using the effective interest method, except for loans and receivables for which the effect of discounting is immaterial. Our available-for-sale financial assets, subsequent to initial recognition, are measured at fair value, which changes in fair value, net of any tax effect, are recorded in our other comprehensive income in equity.

For financial assets measured at amortized cost, an impairment loss is calculated as the difference between a financial asset's carrying amount and the present value of its estimated future cash flows discounted at the financial asset's original effective interest rate. If it is not practicable to obtain the financial asset's estimated future cash flows, impairment losses would be measured by using prices from any observable current market transactions.

For financial assets carried at cost, an impairment loss is measured as the difference between the carrying amount of the financial asset and the present value of estimated future cash flows discounted at the current market rate of return for a similar financial asset.

***Retirement Benefit Costs***

The retirement benefit amount is appropriated as a defined benefit obligation by actuarial assessment using the projected unit credit method. In addition, we recognize our long-term employee benefits obligation using the projected unit credit method with actuarial valuations, which assesses estimated discount rate, future salary increases and expected return on plan assets, which estimations are uncertain.

**Recent Accounting Changes**

For a discussion of new accounting standards, interpretations and amendments applicable to us, see Note 4 of our audited consolidated financial statements as of and for the years ended December 31, 2015, 2016 and 2017 and Note 3 of our unaudited consolidated interim financial statements as of September 30, 2017 and for the three-month and nine-month periods ended September 30, 2016 and 2017 included elsewhere in this Offering Circular.

**Results of Operations**

***Nine Months Ended September 30, 2017 Compared to Nine Months Ended September 30, 2016***

Our sales, substantially all of which were derived from the sales of electric power, increased by 13.1% to Won 3,372 billion for the nine months ended September 30, 2017 from Won 2,981 billion for the nine months ended September 30, 2016, reflecting an 11.5% increase in the unit price of electricity sold to KEPCO to Won 93.15/kWh in the nine months ended September 30, 2017 from Won 83.50/kWh in the nine months ended September 30, 2016, which was attributable to an increase in the overall system marginal price in line with the general increase in international market prices for our main fuel types, including LNG, bituminous coal and oil. Such impact was enhanced by a 3.6% increase in the volume of electricity sold to 35,793 gigawatt hours in the nine months ended September 30, 2017 from 34,538 gigawatt hours in the nine months ended September 30, 2016. The increase in volume of electricity sold in the nine months ended September 30, 2017 was attributable to the completion of construction of our Samcheok Green Power units no. 1 and 2, which subsequently commenced commercial operations in December 2016 and June 2017, respectively.

Our costs of sales increased by 18.3% to Won 2,953 billion in the nine months ended September 30, 2017 from Won 2,497 billion in the nine months ended September 30, 2016, primarily as a result of an 18.5% increase in changes in inventories to Won 2,206 billion in the nine months ended September 30, 2017 from Won 1,862 billion in the nine months ended September 30, 2016, which was mainly due to a general increase in the market prices of our main fuel types, in particular bituminous coal and LNG, and, to a lesser extent, a 19.5% increase in depreciation to Won 442 billion in the nine months ended September 30, 2017 from Won 370 billion in the nine months ended September 30, 2016, which was principally due to the commencement of commercial operations at our Samcheok Green Power units no. 1 and 2 in December 2016 and June 2017, respectively.

As of a result of the above factors, our gross profit decreased by 13.6% to Won 419 billion in the nine months ended September 30, 2017 from Won 485 billion in the nine months ended September 30, 2016, and our gross profit margin decreased to 12.4% in the nine months ended September 30, 2017 from 16.3% in the nine months ended September 30, 2016. The decrease in our gross profit margin was principally attributable to the increase in changes in inventories, which outpaced the increases in the unit price and volume of electricity sold.

Our selling and administrative expenses increased by 20.5% to Won 76 billion in the nine months ended September 30, 2017 from Won 63 billion in the nine months ended September 30, 2016. This increase was mostly attributable to a 424.6% increase in other expenses to Won 17 billion in the nine months ended September 30, 2017 from Won 3 billion in the nine months ended September 30, 2016, resulting from an increase in other miscellaneous expenses, in particular an increase in contribution to our employee welfare fund. Such effect was partially offset by a 29.4% decrease in repairs relating to our administrative buildings and structures to Won 8 billion in the nine months ended September 30, 2017 from Won 11 billion in the nine months ended September 30, 2016, as well as a 53.7% decrease in amortization expenses incurred in connection with our enterprise resource planning software to Won 2 billion in the nine months ended September 30, 2017 from Won 4 billion in the nine months ended September 30, 2016.

As a result of the above factors, our operating income decreased by 18.7% to Won 343 billion in the nine months ended September 30, 2017 from Won 422 billion in the nine months ended September 30, 2016, and our operating income margin decreased to 10.2% in the nine months ended September 30, 2017 from 14.1% in the nine months ended September 30, 2016.

Our net other non-operating expense was Won 6 billion in the nine months ended September 30, 2017 compared to a net other non-operating income of Won 4 billion in the nine months ended September 30, 2016, primarily as a result of accretion expenses of other provisions of Won 6 billion in the nine months ended September 30, 2017 relating to lawsuits we faced in the ordinary course of business, compared to no such expense in the nine months ended September 30, 2016, as well as a one-time recognition of compensation and reparations expense of Won 5 billion in the nine months ended September 30, 2017 relating to funding we provided to our joint venture Kelar S.A. pursuant to our financial guarantee contract, compared to no such expense in the nine months ended September 30, 2016. See Note 39 of our unaudited consolidated interim financial statements as of September 30, 2017 and for the three-month and nine-month periods ended September 30, 2016 and 2017 included elsewhere in this Offering Circular.

Our net other loss was Won 10 billion in the nine months ended September 30, 2017 compared to a net other profit of Won 0.4 billion in the nine months ended September 30, 2016, primarily as a result of a 255.3% increase in other miscellaneous losses to Won 13 billion in the nine months ended September 30, 2017 from Won 4 billion in the nine months ended September 30, 2016, primarily due to additional taxes paid as a result of a tax audit concluded in April 2017 as well as the recognition of expenses arising from our resource development project in Moolarben, Australia, from prior periods.

Our net finance expenses increased by 36.2% to Won 64 billion in the nine months ended September 30, 2017 from Won 47 billion in the nine months ended September 30, 2016, principally due to a 56.5% increase in interest expense to Won 77 billion in the nine months ended September 30, 2017 from Won 49 billion in the nine months ended September 30, 2016, primarily as a result of the discontinuation of our recording of construction-related capitalized interest and commencement of recognizing interest expense upon the commencement of commercial operations at our Samcheok Green Power units no. 1 and 2 in December 2016 and June 2017, respectively. Such effect was offset in part by a 41.4% decrease in net loss on valuation of derivatives to Won 18 billion in the nine months ended September 30, 2017 from Won 31 billion in the nine months ended September 30, 2016, which we entered into to hedge our foreign currency risk. Net gain on foreign currency translation, which was due primarily to our U.S. dollar denominated debt, was offset to a large extent by net loss on valuation of derivatives, which we entered into to hedge our foreign currency risk.

Our loss relating to equity method loss from investments in associates and joint ventures increased by 388.9% to Won 8 billion in the nine months ended September 30, 2017 from Won 2 billion in the nine months ended September 30, 2016, which was principally due to an increase in loss recognized by Daegu Green Power Co., Ltd. See Note 17 of our unaudited consolidated interim financial statements as of September 30, 2017 and for the three-month and nine-month periods ended September 30, 2016 and 2017 included elsewhere in this Offering Circular.

As a result of the above factors, our profit for the period before tax decreased by 32.5% to Won 255 billion in the nine months ended September 30, 2017 from Won 378 billion in the nine months ended September 30, 2016.

Our income tax expense decreased by 19.0% to Won 68 billion in the nine months ended September 30, 2017 from Won 84 billion in the nine months ended September 30, 2016, primarily due to a decrease in profit before income tax as described above. Our effective income tax rate increased to 26.7% in the nine months ended September 30, 2017 from 22.3% in the nine months ended September 30, 2016 primarily due to changes in estimates as a result of the tax audit conducted in April 2017, as discussed above. The effective tax rate applicable to us may further increase in 2018 pursuant to the Government's announcement in December 2017 to raise the corporate income tax rate applicable to companies whose taxable income exceeds Won 300 billion from 22% to 25%, excluding local municipal tax. See Note 35 of our unaudited consolidated interim financial statements as of September 30, 2017 and for the three-month and nine-month periods ended September 30, 2016 and 2017 included elsewhere in this Offering Circular.

As a result of the above factors, our profit for the period decreased by 36.4% to Won 187 billion in the nine months ended September 30, 2017 from Won 294 billion in the nine months ended September 30, 2016.

Our other comprehensive loss decreased by 72.9% to Won 4 billion in the nine months ended September 30, 2017 from Won 15 billion in the nine months ended September 30, 2016, largely as a result of a recognition of defined benefit plan actuarial gains, net of tax, of Won 2 billion in the nine months ended September 30, 2017 compared to defined benefit plan actuarial losses, net of tax, of Won 16 billion in the nine months ended September 30, 2016.

As a result of the above factors, our total comprehensive income for the period decreased by 34.4% to Won 183 billion in the nine months ended September 30, 2017 from Won 278 billion in the nine months ended September 30, 2016.

***2016 Compared to 2015***

Our sales, substantially all of which were derived from the sales of electric power, decreased by 2.6% to Won 4,219 billion in 2016 from Won 4,333 billion in 2015, reflecting a 4.7% decrease in the unit price of electricity sold to KEPCO to Won 86.52/kWh in 2016 from Won 90.82/kWh in 2015, which was attributable to a slight decrease in the overall system marginal price in tandem with the general decline in international market prices for our main fuel types, including LNG, bituminous coal and oil. Such impact was offset in part by a 2.5% increase in the volume of electricity sold to 47,999 gigawatt hours in 2016 from 46,819 gigawatt hours in 2015. The increase in volume of electricity sold in 2016 was attributable to the completion of construction of our Samcheok Green Power unit no. 1, which subsequently commenced commercial operations in December 2016, as well as higher utilization of our LNG-fired power plants in the fourth quarter of 2016 due to a temporary shortage of electricity in the southern regions of Korea following an earthquake in Kyungju in September 2016.

Our costs of sales decreased by 9.5% to Won 3,516 billion in 2016 from Won 3,885 billion in 2015, primarily as a result of a 12.9% decrease in changes in inventories to Won 2,629 billion in 2016 from Won 3,019 billion in 2015, which was mainly due to the general decrease in the market prices of our main fuel types, including LNG, bituminous coal and oil.

As a result of the above factors, our gross profit increased by 57.0% to Won 702 billion in 2016 from Won 447 billion in 2015, and our gross profit margin increased to 16.7% in 2016 from 10.3% in 2015. The increase in our gross profit margin was principally attributable to the combined effect of the decrease in change in inventories, enhanced by the increase in the volume of electricity sold, which together outpaced the decrease in the unit price of electricity sold.

Our selling and administrative expenses increased by 28.5% to Won 99 billion in 2016 from Won 77 billion in 2015. This increase was primarily attributable to a 60.9% increase in salaries to Won 19 billion in 2016 from Won 12 billion in 2015, resulting from an increase in performance based bonuses, as well as a 111.5% increase in other expenses to Won 13 billion in 2016 from Won 6 billion in 2015, resulting from an increase in other miscellaneous expenses, in particular an increase in contribution to our employee welfare fund. Such effect was partially offset by a 28.3% decrease in amortization expenses resulting from a decrease in amortization relating to development costs in connection with our enterprise resource planning software.

As a result of the above factors, our operating income increased by 62.9% to Won 603 billion in 2016 from Won 370 billion in 2015, and our operating income margin increased to 14.3% in 2016 from 8.5% in 2015.

Our net other non-operating income changed to a net income of Won 8 billion in 2016 from a net expense of Won 9 billion in 2015, primarily as a result of a one-time recognition of compensation and indemnification expense of Won 17 billion in 2015 relating to reimbursement of miscellaneous costs to third parties in connection with the construction of our Samcheok Green Power units, which did not recur in 2016.

Our net other loss decreased by 51.7% to Won 18 billion in 2016 from Won 37 billion in 2015, primarily as a result of a 57.4% decrease in loss on disposal of property, plant and equipment to Won 18 billion in 2016 from Won 43 billion in 2015, primarily due to the recognition of losses resulting from the discontinuation of our construction projects in 2015, which did not recur in 2016, and, to a lesser extent, a decrease in loss on disposal of inventories by 98.6% to almost nil in 2016 from Won 10 billion in 2015, primarily relating to losses we recognized from the disposition of oil stocks following the shutdown of our oil-fired power plant in Youngnam in 2015. Such effect was partially offset by a Won 10 billion gain on disposal of property, plant and equipment in 2015 resulting from the disposition of steel we obtained from the demolition of our Youngnam power plant in 2015, compared to no such gain in 2016.

Our net finance expenses decreased by 9.0% to Won 54 billion in 2016 from Won 59 billion in 2015, principally due to an 84.9% decrease in impairment loss on available-for-sale financial assets to Won 2 billion in 2016 from Won 13 billion in 2015, primarily relating to the fair value recognition of our investments in PT. Kedap Sayaaq, the effect of which was substantially offset by an increase in interest expense by 21.1% to Won 64 billion in 2016 from Won 53 billion in 2015, primarily as a result of an increase in interest rates as well as an increase in the volume of interest-bearing liabilities. Net loss on foreign currency translation, which was due primarily to our U.S. dollar denominated debt, was offset by net gain on valuation of derivatives, which we entered into to hedge our foreign currency risk.

We recorded a loss relating to equity method loss from investments in associates of Won 11 billion in 2016 compared to a small gain relating to equity method income of associates in 2015, which was principally due to a loss of Won 2 billion in 2016 compared to a profit of Won 9 billion in 2015 recognized by Daegu Green Power Co., Ltd. See Note 18 of our audited consolidated financial statements as of and for the years ended December 31, 2015 and 2016.

As a result of the above factors, our profit for the year before tax increased by 99.2% to Won 528 billion in 2016 from Won 265 billion in 2015.

Our income tax expense increased by 141.7% to Won 105 billion in 2016 from Won 44 billion in 2015, primarily due to increases in profit before income tax as described above. Our effective income tax rate increased to 19.9% in 2016 from 16.4% in 2015. See Note 37 of our audited consolidated financial statements as of and for the years ended December 31, 2015 and 2016.

As a result of the above factors, our profit for the year increased by 90.8% to Won 423 billion in 2016 from Won 221 billion in 2015.

Our other comprehensive loss increased to Won 10 billion in 2016 from Won 0.4 billion in 2015, largely as a result of an increase in defined benefit plan actuarial losses, net of tax, to Won 9 billion in 2016 from Won 0.5 billion in 2015.

As a result of the above factors, our total comprehensive income for the period increased by 86.5% to Won 412 billion in 2016 from Won 221 billion in 2015.

***2015 Compared to 2014***

Our sales, substantially all of which were derived from the sales of electric power, decreased by 30.6% to Won 4,333 billion in 2015 from Won 6,244 billion in 2014, reflecting a 17.5% decrease in gigawatt hours of electricity sold to 46,819 gigawatt hours in 2015 from 56,727 gigawatt hours in 2014, which was primarily due to normalization of the volume of electricity generated in 2015 following an industry-wide shortage of electricity in 2014, which led to significantly higher utilization of our power plants, including our peak load power plants fueled by LNG. Such impact was enhanced by a 16.5% decrease in the unit price of electricity sold to KEPCO to Won 90.82/kWh in 2015 from Won 108.82/kWh in 2014, which was principally attributable to a decrease in the proportion of electricity produced and sold by us using LNG-fired power plants, which are sold at higher prices compared to electricity produced by our coal-fired power plants due to the relatively higher cost of LNG, as well as a decrease in the overall system marginal price in tandem with the general decline in international market prices for our main fuel types, including LNG, bituminous coal and oil.

Our costs of sales decreased by 35.6% to Won 3,885 billion in 2015 from Won 6,036 billion in 2014, primarily as a result of a 41.4% decrease in changes in inventories to Won 3,019 billion in 2015 from Won 5,149 billion in 2014, which was mainly due to normalization of the volume of electricity generated in 2015, as described above, in particular given the relatively more expensive purchase price for LNG, which constituted a relatively higher portion of our fuel consumption in 2014 as well as the general decrease in market prices for our main fuel types, including LNG, bituminous coal and oil. Such effect was partially offset by an 8.2% increase in depreciation to Won 506 billion in 2015 from Won 468 billion in 2014 primarily as a result of the commencement of commercial operations at our LNG-combined cycle unit in Andong in March 2014.

As of a result of the above factors, our gross profit increased by 115.2% to Won 447 billion in 2015 from Won 208 billion in 2014, and our gross profit margin increased to 10.3% in 2015 from 3.3% in 2014. The increase in our gross profit margin was principally attributable to the 41.4% decrease in changes in inventories as described above, which outpaced the decreases in the volume and unit price of electricity sold.

Our selling and administrative expenses increased by 10.8% to Won 77 billion in 2015 from Won 70 billion in 2014. This increase was primarily attributable to a 70.8% increase in depreciation to Won 11 billion in 2015 from Won 7 billion in 2014 primarily as a result of the relocation of our headquarters from Seoul to Busan in November 2014, as well as a 46.2% increase in repair expenses to Won 14 billion in 2015 from Won 10 billion in 2014, principally due to an increase in fees we paid to KEPCO KDN Co., Ltd. for ordinary repair and maintenance of our computer software. Such impact was partially offset by a 78.4% decrease in rent expenses to Won 1 billion in 2015 from Won 3 billion in 2014, as well as a 15.6% decrease in ordinary development expenses to Won 7 billion in 2015 from Won 8 billion in 2014.

As a result of the above factors, our operating income increased by 167.7% to Won 370 billion in 2015 from Won 138 billion in 2014, and our operating income margin increased to 8.5% in 2015 from 2.2% in 2014.

Our net other non-operating expense was Won 9 billion in 2015 compared to a net income of Won 15 billion in 2014, primarily as a result of the one-time recognition of compensation and indemnification expense of Won 17 billion in 2015 relating to reimbursement of miscellaneous costs to third parties in connection with the construction of our Samcheok Green Power units, as described above.

Our net other loss increased by 382.2% to Won 37 billion in 2015 from Won 8 billion in 2014, primarily as a result of a 190.9% increase in loss on disposal of property, plant and equipment to Won 43 billion in 2015 from Won 15 billion in 2014 due to the recognition of losses resulting from the discontinuation of our construction projects in 2015, which did not occur in 2014, as described above, and a significant increase in loss on disposal of inventories to Won 10 billion in 2015, which was due to losses we recognized from the disposition of oil stocks following the shutdown of our oil-fired power plant in Youngnam in 2015, as described above, from nearly nil in 2014.

Our net finance costs decreased by 3.7% to Won 59 billion in 2015 from Won 62 billion in 2014, principally due to a 12.4% decrease in interest expense to Won 53 billion in 2015 from Won 61 billion in 2014 due to a decrease in interest rates, the effect of which was enhanced by a change from a net loss on transaction of derivatives of Won 4 billion in 2014 to a net gain on transaction of derivatives of Won 3 billion in 2015 due to fluctuations in exchange rates. Net loss on foreign currency translation, which was due primarily to our U.S. dollar denominated debt, was mostly offset by net gain on valuation of derivatives, which we entered into to hedge our foreign currency risk.

We recorded a small gain relating to equity method income from investments in associates in 2015 compared to a loss relating to equity method loss from investments in associates of Won 5 billion in 2014, which was principally due to a profit of Won 9 billion in 2015 compared to a loss of Won 3 billion in 2014 recognized by Daegu Green Power Co., Ltd. See Note 17 of our audited consolidated financial statements as of and for the years ended December 31, 2014 and 2015.

As a result of the above factors, our profit for the year before tax increased by 234.5% to Won 265 billion in 2015 from Won 79 billion in 2014.

Our income tax expense increased by 186.8% to Won 44 billion in 2015 from Won 15 billion in 2014, due primarily to the increase in profit before income tax as described above. Our effective income tax rate decreased to 16.4% in 2015 from 19.2% in 2014. See Note 36 of our audited consolidated financial statements as of and for the years ended December 31, 2015 and 2016.

As a result of the above factors, our profit for the year increased by 245.8% to Won 221 billion in 2015 from Won 64 billion in 2014.

Our other comprehensive loss decreased by 97.8% to Won 0.4 billion in 2015 from Won 19 billion in 2014, largely as a result of unrealized loss on changes in the fair value of derivatives using cash flow hedge accounting, net of tax, in 2014, compared to a gain on the unrealized fair value of derivatives using cash flow hedge accounting, net of tax, in 2015, as well as a decrease in defined benefit plan actuarial losses, net of tax.

As a result of the above factors, our total comprehensive income for the period increased by 388.7% to Won 221 billion in 2015 from Won 45 billion in 2014.

**Capital Requirements**

We anticipate that the following will represent the major sources of our capital requirements in the short-term to intermediate future:

- capital expenditures pursuant to our capital investment program, including our overseas investments;
- working capital requirements, the largest component of which is fuel purchases; and
- payment of principal and interest on our existing debt.

In addition, if unanticipated material changes to the Restructuring Plan, the Basic Plan or other major policy initiatives of the Government relating to the electric power industry, or natural disasters, were to occur, such developments may require a significant amount of additional capital requirements.

***Capital Expenditures***

Our capital expenditures relate primarily to the construction of new generation units and maintenance of existing generation units. Our capital expenditures generally follow budgets established under the applicable Basic Plan, which contains projections relating to the supply and demand of electricity in Korea, based on which we plan the construction of additional generation units. In March 2014, we commenced commercial operations of an LNG-combined cycle unit in Andong with an installed capacity of 417 megawatts. In addition, we commenced commercial operations of Samcheok Green Power units no. 1 and 2, each of which is a high-efficiency coal-fired unit with an installed capacity of 1,022 megawatts, in December 2016 and June 2017, respectively. We are also currently in the process of constructing a 32-megawatt wind power plant in Jeongam, to be completed by October 2018.

The construction of new generating units and power plants requires significant investment over extended periods of time before such power plants can commence operation. We anticipate that capital expenditures for construction of generating facilities, and to a lesser extent, investment for renewable energy sources and facilities related to environmental compliance, will be the most significant use of our funds over the next several years.

Our capital expenditures were Won 1,887 billion, Won 962 billion, Won 706 billion and Won 460 billion in 2014, 2015, 2016 and the first nine months of 2017, respectively. Largely due to capital expenditures relating to the maintenance of existing generation facilities, among others, our capital expenditures and investment in associates and joint ventures are estimated to be approximately Won 760 billion (including amounts already expended in 2017), Won 802 billion and Won 873 billion in 2017, 2018 and 2019, respectively. The budgeted amounts of our capital expenditures and investment in associates and joint ventures for 2017, 2018 and 2019 include amounts budgeted for development of renewable energy sources and for facilities related to compliance with environmental regulations. These estimates for our overall capital expenditures and their allocation to different projects are subject to many uncertainties, many of which are beyond our control.

In addition, in order to deal with shortages of fuel and other resources and also to comply with various environmental standards, the Government adopted the RPS in December 2010, under which each generation company, including us, is required to supply 10% of the total energy generated from such generation company in the form of renewable energy by 2023, with fines being levied on any generation company failing to do so in the prescribed timeline. We met the RPS targets of 3.0% for 2014 and 2015 and 3.5% for 2016. Under the RPS system, we expect to incur approximately Won 1.6 trillion in capital expenditure over the next five years. In December 2016, we signed an agreement with the MOTIE to reduce fine dust and pollutant emissions from coal-fired generation units, and we expect to incur approximately Won 2.7 trillion by 2030 in connection with such efforts. We expect that such additional capital expenditures to increase generation capacity from renewable energy will be covered by a corresponding increase in electricity tariff levied on end-users, which will in turn increase the amount payable to us by KEPCO. However, there is no assurance that the Government will in fact raise the electricity tariff to a level sufficient to fully cover such additional capital expenditures or at all.

We plan to fund a majority of our capital expenditures with net cash provided by operating activities, although there can be no assurance that we will be able to do so. The following table sets forth the budgeted amounts of capital expenditures and our investment in associates and joint ventures for 2017, 2018 and 2019.

| | 2017 | 2018 | 2019 |
|---|---|---|---|
| | (in billions of Won) | | |
| Expansion[(1)] | ₩305[(2)] | ₩349 | ₩340 |
| Maintenance | 324[(3)] | 335 | 359 |
| Others | 131[(4)] | 118 | 174 |
| Total | ₩760 | ₩802 | ₩873 |

*Notes:*

(1) Includes budgeted amount for development of renewable energy sources, which is Won 154 billion, Won 349 billion and Won 325 billion for 2017, 2018 and 2019, respectively.

(2) As of September 30, 2017, Won 267 billion has been spent.

(3) As of September 30, 2017, Won 184 billion has been spent.

(4) As of September 30, 2017, Won 84 billion has been spent.

***Fuel Purchases***

We require significant funds to finance our operations, principally in relation to the purchase of fuels for generation of electricity. In 2014, 2015, 2016 and the first nine months of 2016 and 2017, fuel costs accounted for 82.7%, 69.6%, 62.3%, 62.4% and 65.4% of our sales, and 85.5%, 77.7%, 74.8%, 74.6% and 74.7% of our cost of sales, respectively. We plan to fund our fuel purchases primarily with net operating cash, although in cases of rapid increases in fuel prices, we may also rely on borrowings and issuance of debt securities in the capital markets. See also "Business — Fuel."

***Repayment of Existing Debt***

Payments of principal and interest on indebtedness will require considerable resources. The scheduled maturities of our outstanding debt as of September 30, 2017 were as follows:

| Year ended December 31 | Local currency borrowings[1] | Foreign currency borrowings | Domestic debentures | Foreign debentures | Total |
|---|---|---|---|---|---|
| | | | (in billions of Won) | | |
| 2017 | 4 | — | 210 | 2 | 215 |
| 2018 | 16 | — | 481 | 346 | 844 |
| 2019 | 23 | — | 787 | — | 811 |
| 2020 | 23 | — | 630 | — | 653 |
| 2021 | 23 | — | 349 | — | 372 |
| Thereafter | 406 | — | 2,346 | — | 2,752 |
| Total | ₩496 | ₩— | ₩4,804 | ₩347 | ₩5,647 |

We have incurred interest charges (including capitalized interest) of Won 123 billion, Won 139 billion, Won 145 billion and Won 104 billion in 2014, 2015, 2016 and the first nine months of 2017, respectively. See "— Capital Resources" below.

We plan to repay the principal and interest on our existing debt primarily through borrowings from financial institutions, issuance of securities in the capital markets and net operating cash.

***Overseas Investments***

As part of our revenue diversification and fuel procurement strategy, we plan to continue to make overseas investments on a selective basis, which will be funded primarily through foreign currency-denominated borrowings and securities issuances as well as net operating cash from such projects.

**Capital Resources**

We have met our working capital and other capital requirements primarily from, and we intend to continue to rely on, net cash provided by operating activities, issuance of debt securities and borrowings from financial institutions. For overseas projects and certain consortium projects, we have met capital requirements primarily through cash from our operations and, in limited circumstances where market conditions so warrant, issuance of debt securities by us. Net cash provided by operating activities was Won 431 billion, Won 646 billion and Won 821 billion in 2014, 2015 and 2016, respectively. Net cash provided by operating activities was Won 797 billion and Won 677 billion for

the first nine months of 2016 and 2017, respectively. Total debentures, excluding current portion and net of discounts and premiums, were Won 4,119 billion, Won 4,250 billion, Won 3,815 billion and Won 3,624 billion as of December 31, 2014, 2015 and 2016 and September 30, 2017, respectively. Total long-term borrowings, excluding current portion, were Won 3 billion, Won 4 billion, Won 192 billion and Won 292 billion as of December 31, 2014, 2015 and 2016 and September 30, 2017, respectively. As of December 31, 2014, 2015, 2016 and September 30, 2017, the current portion of our long-term borrowings and debentures was Won 101 billion, Won 480 billion, Won 771 billion and Won 854 billion, respectively. As of December 31, 2014, 2015, 2016 and September 30, 2017, our long-term borrowings and debentures, including the current portion thereof, as a percentage of equity was 121.5%, 127.6%, 113.6% and 110.2%, respectively.

Our ability to incur long-term borrowings and debentures in the future is subject to a variety of factors, many of which are beyond our control, including the implementation of the Restructuring Plan and the amount of capital that other Korean entities may seek to raise in capital markets. Economic, political and other conditions in Korea may also affect investor demand for our securities and those of other Korean entities. In addition, our ability to incur debt will also be affected by the Government's policies relating to foreign currency borrowings, the liquidity of the Korean capital markets and our operating results and financial condition. In case of adverse developments in Korea, however, the price at which such financing may be available may not be acceptable to us.

In the past, we incurred short-term borrowings primarily through commercial papers sold to domestic financial institutions. We have not had, and we do not expect to have, any material difficulties in obtaining short-term borrowings. Our short-term borrowings fluctuate from time to time depending on working capital requirements. We had short-term borrowings of Won 13 billion as of December 31, 2014. However, we did not have any short-term borrowings as of December 31, 2015 and 2016 and September 30, 2017.

**Liquidity**

The following table sets forth a summary of our cash flows for the periods indicated.

| | For the Year Ended December 31, | | | For the Nine Months Ended September 30, | |
|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2016 | 2017 |
| | (in billions of Won) | | | | |
| Net cash provided by operating activities | ₩431 | ₩646 | ₩821 | ₩797 | ₩677 |
| Net cash used in investing activities | (1,855) | (956) | (707) | (659) | (773) |
| Net cash provided by (used in) financing activities | 1,373 | 481 | 24 | (36) | (41) |
| Effect of exchange rate fluctuations | 0 | 0 | 0 | (1) | 0 |
| Cash and cash equivalents at the beginning of period | 62 | 11 | 182 | 182 | 320 |
| Cash and cash equivalents at the end of period | 11 | 182 | 320 | 283 | 184 |
| Net increase (decrease) in cash and cash equivalents | ₩(51) | ₩171 | ₩138 | ₩102 | ₩(137) |

For the first nine months of 2017, cash and cash equivalents decreased by Won 137 billion, largely reflecting net cash used in investing activities of Won 773 billion, which was largely offset by net cash provided by operating activities of Won 677 billion. For the first nine months of 2016, cash and cash equivalents increased by Won 102 billion, largely reflecting net cash provided by operating activities of Won 797 billion, which was substantially offset by net cash used in investing activities of Won 659 billion.

Net cash provided by operating activities decreased by 15.0% to Won 677 billion in the nine months ended September 30, 2017 from Won 797 billion in the nine months ended September 30, 2016, largely in line with the decrease in profit for the period. Net cash used in investing activities increased by 17.2% to Won 773 billion in the nine months ended September 30, 2017 from Won 659 billion in the nine months ended September 30, 2016, largely as a result of increases in short-term financial instruments and loans, which were partially offset by a decrease in acquisition of property, plant and equipment. Net cash used in financing activities increased by 14.7% to Won 41 billion in the nine months ended September 30, 2017 from Won 36 billion in the nine months ended September 30, 2016, largely as a result of a net decrease in proceeds from borrowings as well as an increase in payment of cash dividends and other factors, the effect of which was more than offset by a net increase in proceeds from debentures.

In 2016, cash and cash equivalents increased by Won 138 billion, largely reflecting net cash provided by operating activities of Won 821 billion, which was in large part offset by net cash used in investing activities of Won 707 billion. In 2015, cash and cash equivalents increased by Won 171 billion, reflecting net cash provided by operating activities of Won 646 billion and net cash provided by financing activities of Won 481 billion, which was in large part offset by net cash used in investing activities of Won 956 billion. In 2014, cash and cash equivalents decreased by Won 51 billion, reflecting net cash used in investing activities of Won 1,855 billion, which was offset by net cash provided by financing activities of Won 1,373 billion and net cash provided by operating activities of Won 431 billion.

Net cash provided by operating activities increased by 27.1% to Won 821 billion in 2016 from Won 646 billion in 2015, largely in line with the increase in profit for the year. Net cash used in investing activities decreased by 26.1% to Won 707 billion in 2016 from Won 956 billion in 2015, largely as a result of a decrease in acquisition of property, plant and equipment, which was partially offset by an increase in acquisition of investments in associates and joint ventures. Net cash provided by financing activities decreased by 95.1% to Won 24 billion in 2016 from Won 481 billion in 2015, largely as a result of an increase in repayment of borrowings, as well as a decrease in proceeds from borrowings.

Net cash provided by operating activities increased by 49.9% to Won 646 billion in 2015 from Won 431 billion in 2014, largely in line with the increase in profit for the year. Net cash used in investing activities decreased by 48.5% to Won 956 billion in 2015 from Won 1,855 billion in 2014, largely as a result of a decrease in acquisition of property, plant and equipment. Net cash provided by financing activities decreased by 65.0% to Won 481 billion in 2015 from Won 1,373 billion in 2014, largely as a result of a decrease in proceeds from debentures.

Our liquidity is substantially affected by our construction expenditures and fuel purchases. Our construction in progress increased from Won 3,099 billion as of December 31, 2014 to Won 3,210 billion as of December 31, 2015 but decreased significantly to Won 1,513 billion as of December 31, 2016 and Won 706 billion as of September 30, 2017. Our fuel costs represented 82.7%, 69.6%, 62.3% and 65.4% of our sales in 2014, 2015, 2016 and the first nine months of 2017, respectively.

Due to the capital-intensive nature of our business as well as significant volatility in fuel prices, from time to time we operate with a working capital deficit, and we may have substantial working capital deficits in the future. In order to meet capital requirements related to working capital deficits, we intend to continue to rely primarily upon net cash provided by operating activities, issuance of debt securities and borrowings from financial institutions. We had a working capital surplus of Won 18 billion as of December 31, 2014, but had working capital deficits of Won 115 billion, Won 233 billion and Won 300 billion, respectively, as of December 31, 2015 and 2016 and September 30, 2017.

We may face liquidity concerns in the case of significant depreciation of the Won against major foreign currencies over a short period of time. While substantially all of our revenues are denominated in Won, we pay for a substantial portion of our fuel purchases in foreign currencies and some of our long-term borrowings and debentures is denominated in foreign currencies, and payment of principal and interest thereon is made in foreign currencies. In the past, we have incurred foreign currency debt principally due to the limited availability and the high cost of Won-denominated financing in Korea. However, in light of the increasing sophistication of the Korean capital markets and the recent increase in liquidity in the Korean financial markets, we are targeting a 1:1 ratio between the portion of our debt which is denominated in foreign currencies as compared to the Won. We do, however, intend to continue to raise certain amounts of capital through long-term foreign currency debt for purposes of maintaining diversity in our funding sources. As of September 30, 2017, 7.2% of our sum of debentures (net of discounts) and long-term borrowings (including the current portion thereof), before accounting for swap transactions, was denominated in foreign currencies, principally U.S. dollars.

The following summarizes our consolidated contractual obligations as of September 30, 2017, and the effect such obligations are expected to have on liquidity and cash flow in future periods.

| | Payments Due by Period | | | | |
|---|---|---|---|---|---|
| **Contractual Obligations** | **Total** | **Less than 1 year** | **1-3 years** | **4-5 years** | **After 5 years** |
| | | | **(in billions of Won)** | | |
| Long-term borrowings and debentures[(1)] | ₩5,647 | ₩986 | ₩1,453 | ₩760 | ₩2,447 |
| Short-term borrowings | 0 | 0 | 0 | 0 | 0 |
| Total | ₩5,647 | ₩986 | ₩1,453 | ₩760 | ₩2,447 |

*Note:*

(1) Includes current portion of long-term borrowings and debentures.

For a description of our other commitments and contingent liabilities, see Note 43 of our audited consolidated financial statements as of and for the years ended December 31, 2015 and 2016, Note 42 of our audited consolidated financial statements as of and for the years ended December 31, 2014 and 2015, and Note 41 of our unaudited consolidated interim financial statements as of September 30, 2017 and for the three-month and nine-month periods ended September 30, 2016 and 2017 included elsewhere in this Offering Circular.

**Market Risks**

Our primary market risk exposures are to fluctuations in exchange rates, interest rates and fuel prices.

We are exposed to foreign exchange risk related to foreign currency denominated liabilities. Substantially all of our sales are denominated in Won. However, as of September 30, 2017, Won 344 billion, or 7.2% of the sum of our debentures (net of discount) and long-term borrowings (including the current portion thereof), before accounting for swap transactions, was denominated in foreign currencies, principally U.S. dollars. We have mitigated all of our exposure to exchange rate fluctuations through currency swap contracts in respect of all of our U.S. dollar-denominated notes. We also enter into foreign currency contracts to hedge substantially all of our exchange rate exposure from imported bituminous coal requirements purchased in U.S. dollars.

We are exposed to interest rate risk. Upward fluctuations in interest rates increase the cost of additional debt and the interest cost of outstanding variable rate borrowings. We manage interest rate exposure in our debt positions by limiting our variable rate and fixed rate exposures to percentages of total debt and by monitoring the effects of market changes in interest rates. For the nine months ended September 30, 2017, a 1% increase in interest rates of variable rate borrowings, with all other variables held constant, would have decreased our profit before income tax by Won 0.8 billion, with a 1% decrease having the opposite effect. For the year ended December 31, 2016, a 1% increase in the interest rates of variable rate borrowings, with all other variables held constant, would have decreased our profit before tax by Won 1.8 billion, with a 1% decrease having the opposite effect.

We are also exposed to fluctuations in prices of fuel materials. Fuel costs represented 82.7%, 69.6%, 62.3% and 65.4% of our sales in 2014, 2015, 2016 and the first nine months of 2017, respectively. During the first nine months of 2017, as a percentage of the generated electricity volume, bituminous coal accounted for 76.0% of our fuel requirements, LNG for 21.2% and oil for 2.6%. In 2016, as a percentage of the generated electricity volume, bituminous coal accounted for 65.1% of our fuel requirements, LNG for 31.9% and oil for 2.7%. See "Risk Factors — Risks Relating to Our Business — We are dependent on fuel imported from overseas suppliers in currencies other than Won and under contracts with varying quantity and duration, and rising fuel costs could adversely affect our results of operations" and "Business — Fuel."

In order to limit our foreign exchange and interest rate exposure, we from time to time enter into derivative financial instruments, for hedging purposes, as described above. Such instruments include interest rate swaps, currency swaps and other derivative contracts. We do not enter into derivative financial instruments in order to hedge market risk resulting from fluctuations in fuel costs, although we do enter into fixed-price and fixed-volume contracts for our imported bituminous coal requirements. Our policy is to hold or issue derivative financial instruments for hedging purposes only. Our derivative financial instruments are entered into with major financial institutions, thereby minimizing the risk of credit loss.

For information relating to fair market values of our derivative financial instruments, see Note 11 of our audited consolidated financial statements as of and for the years ended December 31, 2015 and 2016, Note 10 of our audited consolidated financial statements as of and for the years ended December 31, 2014 and 2015, and Note 10 of our unaudited consolidated interim financial statements as of September 30, 2017 and for the three-month and nine-month periods ended September 30, 2016 and 2017 included elsewhere in this Offering Circular.

**Inflation**

The effects of inflation in Korea on our financial condition and results of operations are reflected primarily in construction costs as well as in labor expenses. The general rate of inflation in Korea was 1.3% in 2014, 0.7% in 2015 and 1.0% in 2016, according to Statistics Korea. Inflation in Korea has not had a significant impact on our results of operations. It is possible that inflation in the future may have an adverse effect on our financial condition or results of operations.

# BUSINESS

## Overview

We were established on April 2, 2001 as one of six Generation Subsidiaries of KEPCO. The Generation Subsidiaries generate over 80% of the electricity in Korea. As of September 30, 2017, we had a domestic generation capacity of 11,264 megawatts, or approximately 9.8% of the total electricity generation capacity in Korea (excluding plants generating electricity primarily for private or emergency use). In 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, we sold 56,727, 46,819, 47,999, 34,538 and 35,793 GWh, respectively, to KEPCO through the KPX. KEPCO is currently the sole electricity transmission and distribution company in Korea.

Total demand for electricity in Korea increased by 0.6% in 2014, 1.3% in 2015 and 2.8% in 2016, in each case, year on year, according to KEPCO, and the consumption of electric power is expected to continue to increase by 2.1% per annum from 2017 to 2031, according to the Government's Eighth Basic Plan. We plan to continue to make substantial capital expenditures to expand our generation capacity and enhance our generating systems in the future, including with respect to the generation of renewable energy.

Based on our "We generate cleaner energy and achieve people's trust" vision, we strive to establish our position as a leader in the electricity generation industry both domestically and internationally by enhancing our operational efficiency, selectively pursuing new business opportunities abroad and effectively responding to increasingly stringent regulations governing the power generation industry. In particular, given a shift in the energy paradigm that focuses on the environment, we are fully committed to increasing the portion of electricity we generate using renewable and alternative energy sources, for example, by continuing to invest in promising IPP and CES projects that focus on renewable energy sources. We aim to increase the production capacity of renewable energy in our product mix to 20% by 2025.

As of September 30, 2017, we had total installed generation capacity of 11,264 megawatts, of which 6,044 megawatts, 200 megawatts, 4,865 megawatts, 105 megawatts and 50 megawatts were attributable to our coal-fired units, oil-fired units, LNG-combined cycle units, oil-combined cycle units and renewable energy units, respectively. We generated sales of Won 6,244 billion, Won 4,333 billion, Won 4,219 billion, Won 2,981 billion and Won 3,372 billion in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively, and our profit for the period was Won 64 billion, Won 221 billion, Won 423 billion, Won 294 billion and Won 187 billion in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively.

We are a corporation incorporated with limited liability under the laws of Korea. Our registered office is located at BIFC B/D, 40 Munhyeongeumyung-ro, Nam-gu, Busan 48400, Korea. Our website address is *http://www.kospo.co.kr*.

## Power Generation

As of September 30, 2017, we owned and operated ten coal-fired thermal generation units at our power plant complexes located in Hadong and Samcheok, two oil-fired thermal generation units at our power plant complex located in Nam Jeju, 28 LNG-combined cycle units at our power plant complexes located in Shin Incheon, Busan, Youngwol and Andong, and three oil-combined cycle units at our power plant complexes located in Hanlim. We also have an LNG-combined cycle power plant in Chile through a joint venture. See"—Overseas Activities." Our thermal units produce electricity using steam turbine generators and include units fired by coal or oil. Our combined cycle units produce electricity using gas turbine generators and steam turbine generators fired by LNG or bio-heavy oil.

We have also invested in the generation of renewable energy. We own and operate 19 wind power units at our power plant complexes located in Hankyung and Seongsan, and a number of photovoltaic and small hydro power plants throughout various regions of Korea, including Hadong, Busan, Youngwol, Nam Jeju, Shin Incheon and Haengwon. Our wind power unit converts wind energy into electricity using wind turbines that generate electricity by the rotation of its blades that are connected to a power generator. Our photovoltaic units utilize solar cells to directly convert sunlight into electricity. Our small hydropower units utilize the coolant water discharged from our thermal generation units to spin water turbines to produce electricity. The following map shows the geographic locations of our power plant complexes as of September 30, 2017 in Korea.



The table below sets forth for each domestic plant type and location, the weighted average age of units, installed capacity, the average capacity factor and the average fuel cost based upon the net amount of electricity generated as of September 30, 2017:

| | Weighted Average Age of Units | Installed Capacity[1] | Average Capacity Factor[2] | Average Fuel Cost |
|---|---|---|---|---|
| | (years) | (megawatts) | (%) | (Won/kWh) |
| Thermal: | | | | |
| Bituminous:[3] | | | | |
| Hadong units no. 1, 2, 3, 4, 5, 6, 7, 8 | 16.2 | 4,000 | 88.2 | 52.49 |
| Samcheok Green Power units no. 1, 2 | 0.5 | 2,044 | 48.5 | 55.51 |
| Oil: | | | | |
| Nam Jeju units no. 1, 2 | 10.8 | 200 | 71.9 | 153.37 |
| Total thermal | 10.9 | 6,244 | 77.5 | 54.66 |
| Combined cycle:[4] | | | | |
| LNG: | | | | |
| Shin Incheon gas turbine units no. 1, 2, 3, 4, 5, 6, 7, 8; steam turbine units no. 1, 2, 3, 4 | 23.9 | 1,800 | 22.3 | 93.12 |
| Busan gas turbine units no. 1, 2, 3, 4, 5, 6, 7, 8; steam turbine units no. 1, 2, 3, 4 | 13.9 | 1,800 | 31.9 | 88.16 |
| Youngwol gas turbine units no. 1, 2, 3; steam turbine unit no.1 | 7.0 | 848 | 3.7 | 95.77 |
| Andong gas turbine unit no. 1; steam turbine unit no. 1 | 3.3 | 417 | 43.1 | 88.00 |
| Oil: | | | | |
| Hanlim gas turbine units no. 1, 2; steam turbine unit no. 1 | 21.3 | 105 | 11.2 | 159.04 |
| Total combined cycle | 15.8 | 4,970 | 24.1 | 94.46 |
| Renewable: | | | | |
| Wind power: | | | | |
| Hankyung #1-2 units 1, 2, 3, 4, 5, 6, 7, 8, 9 | 10.9 | 21 | 17.4 | 1.41 |
| Seongsan #1-2 units 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 | 7.9 | 20 | 25.9 | 0.79 |
| Total wind power | 9.5 | 41 | 25.5 | 1.06 |
| Photovoltaic | 7.0 | 6 | 14.6 | 0.63 |
| Small Hydropower | 0.2 | 3 | 14.9 | |
| Total renewable | 4.6 | 50 | 20.6 | 0.96 |
| Total | 13.0 | 11,264 | 52.4 | 63.30 |

*Notes:*

(1) Installed capacity represents the level of output that may be sustained continuously without significant risk of damage to plant and equipment.

(2) Average capacity factor represents the total number of kilowatt hours of electricity generated in the period divided by the total number of kilowatt hours that would have been generated assuming continuous operation of generation units at installed capacity expressed as a percentage.

(3) Bituminous units are fueled by bituminous coal supplemented by wood pellets.

(4) Combined cycle units are fueled by LNG or bio-heavy oil.

As of September 30, 2017, we had an aggregate domestic installed capacity of 11,264 megawatts. In 2014, 2015, 2016 and the nine months ended September 30, 2017, the average capacity factor of our generation units was 73.1%, 60.4%, 60.3% and 52.4%, respectively. In 2014, 2015, 2016 and the nine months ended September 30, 2017, our power generation amounted to 58,599 GWh, 48,728 GWh, 49,057 GWh and 36,532 GWh, respectively.

The useful life of each type of units without substantial refurbishment is approximately 30 years for thermal and combined cycle units. Substantial refurbishment can extend the useful lives of thermal units by an additional ten years or more. See "—Capital Investment Program."

The maintenance cycle for our power generation units ranges from 24 to 72 months depending on the type and installed capacity of units. The duration of maintenance, which is conducted in accordance with our internal guidelines that specify four different levels of maintenance types depending on the nature and degree of maintenance involved, may last from 7 to 55 days. In 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, our repair and maintenance expenses were Won 288 billion, Won 296 billion, Won 249 billion, Won 164 billion and Won 184 billion, respectively. Our forced (unplanned) outage factor, which is a percentage of total forced (unplanned) outage time over total available operating time, was 0.16%, 0.02%, 0.10%, 0.08% and 0.01% in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively. We have received ISO 22301 and 9001 certifications for our business continuity and quality management systems.

Efficient operation of generation units requires that such units be run continuously at relatively constant energy output levels. As electricity output cannot be stored in significant amounts, generation must be continuously managed to match demand. Within each day there is a certain level below which demand does not fall. This minimum level of demand throughout the day is known as "base load" while "peak load" refers to the maximum level of demand during the course of a day and "intermediate load" refers to the level of demand between base load and peak load. Base load generation units are those that can generate power in dependable amounts to consistently meet demand. Electricity demand, however, constantly fluctuates by time and region. Accordingly, peak and intermediate load power plants are also coordinated into our system in order to meet such changing demand for power.

Base load power plants, which are typically fueled by coal, produce continuous, reliable and efficient power at low cost. They often take a relatively long time to start up and are relatively inefficient in terms of cost-to-output ratio when operated at less than full output. Base load plants run at all times throughout the year except in the case of repairs or scheduled maintenance. Their reliability to provide the base demand helps keep their operation costs low and offers stable, attractive pricing through long-term agreements. Peak load power plants provide power during times of peak demand. These plants can speedily respond to changes in electricity demand as they can be started up relatively quickly and vary the quantity of electrical output by the minute and therefore, are principally used to meet short-term surges in demand. Peak load power plants, which are typically fueled by LNG, are expensive to operate relative to the amount of power they produce and the cost of fuel to power them. Intermediate load plants, which are typically fueled by oil, fill the gap between base load and peak load plants. Coal-fired units in our Hadong and Samcheok complexes operate at base load, while our oil-fired units, LNG-combined cycle units and oil-combined cycle units in our Nam Jeju, Shin Incheon, Busan, Youngwol, Andong and Hanlim complexes operate at intermediate to peak load. We operate a relatively higher proportion of peak load generation units, fueled by LNG, compared to most of the other Generation Subsidiaries. As of September 2017, our LNG-combined cycle units accounted for approximately 43.2% in aggregate of our total installed capacity.

The table below sets forth our installed capacity at the end of each period and peak and average load in the periods indicated below.

| | As of and for the year ended December 31, | | | As of and for the nine months ended September 30, | |
|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2016 | 2017 |
| | | | (megawatts) | | |
| Installed capacity | 9,217 | 9,217 | 10,239 | 9,217 | 11,264 |
| Peak-load[(1)] | 9,787 | 9,164 | 9,488 | 9,362 | 9,987 |
| Average load[(2)] | 6,689 | 5,562 | 5,600 | 4,094 | 4,170 |

*Notes:*

(1) Peak load represents the highest load in the relevant period.

(2) Average load represents the total number of megawatts of electricity generated in the period divided by the total number of hours in that period.

## Fuel

Fuel costs constituted 82.7%, 69.6%, 62.3%, 62.4% and 65.4% of our sales, and 85.5%, 77.7%, 74.8%, 74.6% and 74.7% of our cost of sales, in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively. The table below sets forth the total fuel costs for the periods indicated.

| | For the year ended December 31, | | | | | | For the nine months ended September 30, | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2014 | | 2015 | | 2016 | | 2016 | | 2017 | |
| | (billions of Won) | (%) | (billions of Won) | (%) | (billions of Won) | (%) | (billions of Won) | (%) | (billions of Won) | (%) |
| Bituminous coal | 1,129 | 21.9 | 1,114 | 36.9 | 1,103 | 42.0 | 788 | 42.4 | 1,273 | 57.7 |
| Oil[(1)] | 286 | 5.5 | 196 | 6.5 | 183 | 7.0 | 139 | 7.5 | 144 | 6.5 |
| LNG[(2)] | 3,617 | 70.1 | 1,590 | 52.7 | 1,243 | 47.3 | 857 | 46.1 | 702 | 31.8 |
| Others[(3)] | 130 | 2.5 | 116 | 3.8 | 98 | 3.7 | 75 | 4.0 | 87 | 3.9 |
| Total fuel cost[(4)] | 5,163 | 100.0 | 3,016 | 100.0 | 2,627 | 100.0 | 1,861 | 100.0 | 2,206 | 100.0 |

*Notes:*

(1) Represents bunker-C oil and bio-heavy oil used for our oil-fired thermal units and oil-combined cycle units. Excludes kerosene and diesel oil to initially start up our thermal, combined cycle and wind power generation units.

(2) LNG is used as fuel for our LNG-combined cycle units.

(3) Represents (i) cost of storing and managing fuel stocks at our units, (ii) fuel for our renewable units (primarily wood pellets), (iii) fuel to initially start up our units (primarily kerosene and diesel oil) and other miscellaneous fuel related costs. Fuel storage and management costs amounted to Won 42 billion, Won 47 billion, Won 38 billion, Won 29 billion and Won 36 billion in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017. The cost of wood pellets amounted to Won 67 billion, Won 47 billion, Won 41 billion, Won 31 billion and Won 25 billion in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively. The cost of kerosene amounted to Won 4 billion, Won 3 billion, Won 3 billion, Won 2 billion and Won 7 billion in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively.

In order to ensure stable supplies of fuel, we enter into long-term contracts with various suppliers, and supplement such supplies with purchases of fuel on the spot market. Substantially all of the fuel we use comes from sources outside Korea, and the fuel cost is impacted by the exchange rates between the Won and the relevant foreign currency in which prices are set. See "Risk Factors — Risks Relating to Our Business — We are dependent on fuel imported from overseas suppliers in currencies other than Won under contracts with varying quantity and duration, and rising fuel costs could adversely affect our results of operations."

Cost increases resulting from the depreciation of the Won against the U.S. dollar or other currencies, or supply disruptions have adversely affected our results of operations in the past and may do so in the future. In recent years, we have reduced the cost of fuel procurement while maintaining a stable fuel supply through a centralized inventory management control tower system that utilizes big data to forecast our supply needs. Generally, we pay for fuel on a cash-on-delivery basis and finance such payments in part with bank usance or on a letter of credit basis.

***Bituminous Coal***

Our coal-fired generation units represent over half of our installed generation capacity, with 53.7% of our total installed generation capacity represented by such units as of September 30, 2017. In 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, we purchased 12.0 million tons, 12.6 million tons, 13.5 million tons, 9.7 million tons and 12.3 million tons of bituminous coal, the main type of coal we use as the raw material for our coal-fired generation of power, amounting to Won 1,105 billion, Won 1,113 billion, Won 1,143 billion, Won 806 billion and Won 1,381 billion, respectively. Substantially all of our bituminous coal requirements are imported from approximately 23 suppliers located in Indonesia, Australia, Colombia, South Africa and Russia under long-term or spot contracts. Approximately 82%, 64%, 55%, 58% and 52% of our bituminous coal requirements were purchased under long-term contracts in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively, with the remaining requirements being purchased on the spot market. See "Risk Factors — Risks Relating to Our Business — We are dependent on fuel imported from overseas suppliers in currencies other than Won under contracts with varying quantity and duration, and rising fuel costs could adversely affect our results of operations."

Pursuant to the terms of our long-term supply contracts, prices may be adjusted monthly, quarterly or annually depending on market conditions. In the case of term contracts, the obligation to purchase contracted annual amounts of fuel automatically terminates at the end of the year if the parties cannot reach an agreement in respect of price. Depending on the type of contract, we are able to increase or decrease the quantity of bituminous coal under the relevant supply contract by up to nearly 100%. In addition, under the long-term contracts, we have the option to reduce the required annual purchase quantity in the event of a revision in plant construction schedule, fluctuations in spot market prices, suspension of plant operation and alteration of the power generation plan as a result of an accident or an unavoidable cause. The average cost of bituminous coal per ton purchased by us was approximately Won 91,709, Won 89,019, Won 84,443, Won 84,008 and Won 109,011 in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively. We may, if necessary, augment our supplies by entering into new short-term import contracts or by making spot purchases. We estimate that the delivery time for bituminous coal imported from Indonesia, Australia, Colombia, South Africa and Russia is approximately 9 days, 15 days, 42 days, 23 days and 4 days, respectively. Currently, we maintain a reserve of bituminous coal of approximately 16 to 26 days.

***Oil***

We purchased approximately 236 thousand kiloliters, 167 thousand kiloliters, 148 thousand kiloliters, 120 thousand kiloliters and 113 thousand kiloliters of bunker-C fuel oil in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, amounting to Won 182 billion, Won 75 billion, Won 53 billion, Won 40 billion and Won 53 billion, respectively. While bunker-C fuel oil has historically been the primary source of our oil requirements, in recent years, we have increased our purchases of bio-heavy oil, which contains lower levels of sulfur and nitrogen contents compared to bunker-C fuel oil and is thus more environment-friendly. In 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, we purchased approximately 94 thousand kiloliters, 177 thousand kiloliters, 200 thousand kiloliters, 154 thousand kiloliters and 128 thousand kiloliters of bio-heavy oil, amounting to Won 72 billion, Won 108 billion, Won 120 billion, Won 92 billion and Won 82 billion, respectively.

We purchase oil through a competitive open bidding process with other bidders, including Korean refiners, on the spot market. Purchase prices, including taxes and other expenses, of oil are based on the spot market in Singapore. The average cost of bunker-C oil per kiloliter was approximately Won 771,852, Won 447,836, Won 360,042, Won 336,599 and Won 471,752 in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively, and the average cost of bio-heavy oil per kiloliter was approximately Won 765,359, Won 614,056, Won 599,355, Won 594,902 and Won 637,935 in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively. We estimate that oil purchased from oil refineries in Korea takes approximately three to six days to be delivered to our power plant complexes. Currently, we maintain a reserve of approximately 13 days for bunker-C fuel oil and 8 days for bio-heavy oil.

***LNG***

In 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, we purchased approximately 3,441 billion tons, 2,059 billion tons, 2,122 billion tons, 1,484 billion tons and 1,064 billion tons of LNG, amounting to Won 3,657 billion, Won 1,590 billion, Won 1,243 billion, Won 857 billion and Won 702 billion, respectively.

We purchase all of our domestic LNG requirements from KOGAS, a Korean corporation of which KEPCO owns 20.47%, under a 20-year LNG supply contract (the "LNG Contract") with KOGAS. Our LNG Contract with regard to our Busan and Shin Incheon units, Youngwol units and Andong units is scheduled to expire in 2026, 2030 and 2033, respectively. Under the terms of the LNG Contract, our purchase quantity is determined through negotiations with KOGAS, subject to the Government's approval. We are under an obligation to purchase LNG quantities within a 10% plus or minus range from our previously agreed purchase quantity. If we purchase LNG outside this range, we are required to pay a penalty to KOGAS. All our purchases have been within such range in the past five years. The purchase price for LNG is determined monthly, subject to approval by the MOTIE. KOGAS imports LNG primarily from Indonesia and Malaysia and supplies LNG to us, other Generation Subsidiaries and other Korean gas companies.

The average cost of LNG per ton purchased by us was approximately Won 1,062,937, Won 772,200, Won 585,694, Won 577,679 and Won 659,983 in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017, respectively.

## Sales and Purchase of Power

### *Generation Companies' Combined Sales of Electricity*

Pursuant to Article 31 of the Electricity Business Act of Korea, we sell all of the electricity we generate to KEPCO through the KPX. KEPCO is currently the only company engaged in the transmission and distribution of electricity in Korea. The tables below set forth electricity sales, as well as sales of RECs (which are traded on the KPX among generation companies), of each of the generation companies, including us, for the years ended December 31, 2014, 2015 and 2016 and the nine months ended September 30, 2016 and 2017 based on the power trading results of KPX.

| | For the year ended December 31, 2014 | | | | |
|---|---|---|---|---|---|
| | Volume | Percentage of Total Volume | Sales [1] | Percentage of Total Sales | Unit Price |
| | (Gigawatt hours) | (%) | (in billions of Won) | (%) | (Won/kWh) |
| **Generation Companies**: | | | | | |
| KHNP | 155,042 | 31.6 | 9,253 | 20.8 | 59.68 |
| KOSPO | 56,727 | 11.6 | 6,267 | 14.1 | 110.48 |
| KOMIPO | 50,216 | 10.2 | 4,983 | 11.2 | 99.24 |
| KOWEPO | 48,424 | 9.9 | 4,883 | 11.0 | 110.85 |
| KOSEP | 63,923 | 13.0 | 4,417 | 9.9 | 69.10 |
| EWP | 48,585 | 9.9 | 4,487 | 10.1 | 92.35 |
| Others | 67,482 | 13.8 | 10,108 | 22.8 | 149.78 |
| **Total** | 490,398 | 100.0 | 44,398 | 100.0 | 90.53 |
| **Energy Sources**: | | | | | |
| Nuclear | 149,199 | 30.4 | 8,188 | 18.4 | 54.88 |
| Bituminous coal | 189,471 | 38.6 | 12,340 | 27.8 | 65.13 |
| Anthracite coal | 7,752 | 1.6 | 706 | 1.6 | 91.11 |
| Oil | 7,596 | 1.5 | 1,681 | 3.8 | 221.24 |
| LNG | 114,847 | 23.4 | 18,479 | 41.6 | 160.90 |
| Pumped storage | 5,042 | 1.0 | 865 | 1.9 | 171.63 |
| Renewables | 16,492 | 3.4 | 2,139 | 4.8 | 129.72 |
| **Total** | 490,398 | 100.0 | 44,398 | 100.0 | 90.53 |
| **Load**: | | | | | |
| Base load | 342,420 | 69.8 | 20,671 | 46.6 | 60.37 |
| Non-base load | 147,979 | 30.2 | 23,726 | 53.4 | 160.34 |
| **Total** | 490,398 | 100.0 | 44,398 | 100.0 | 90.53 |

*Source*: KPX.

*Note*:

(1) Includes sale of RECs by generation companies in the amount of Won 517 billion, which is equivalent to 1.2% of total sales.

| | For the year ended December 31, 2015 | | | | |
|---|---|---|---|---|---|
| | Volume | Percentage of Total Volume | Sales [1] | Percentage of Total Sales | Unit Price |
| | (Gigawatt hours) | (%) | (in billions of Won) | (%) | (Won/kWh) |
| **Generation Companies**: | | | | | |
| KHNP | 161,466 | 32.6 | 10,496 | 25.2 | 65.00 |
| KOSPO | 46,819 | 9.5 | 4,351 | 10.5 | 92.94 |
| KOMIPO | 43,876 | 8.9 | 3,880 | 9.3 | 88.42 |
| KOWEPO | 46,136 | 9.3 | 4,204 | 10.1 | 91.11 |
| KOSEP | 67,116 | 13.5 | 4,931 | 11.8 | 73.47 |
| EWP | 46,960 | 9.5 | 4,067 | 9.8 | 86.60 |
| Others | 82,988 | 16.8 | 9,705 | 23.3 | 116.94 |
| **Total** | 495,361 | 100.0 | 41,633 | 100.0 | 84.04 |
| **Energy Sources**: | | | | | |
| Nuclear | 157,167 | 31.7 | 9,853 | 23.7 | 62.69 |
| Bituminous coal | 194,288 | 39.2 | 13,793 | 33.1 | 70.99 |
| Anthracite coal | 6,782 | 1.4 | 730 | 1.8 | 107.69 |
| Oil | 9,407 | 1.9 | 1,414 | 3.4 | 150.29 |
| LNG | 106,426 | 21.5 | 13,446 | 32.3 | 126.34 |
| Pumped storage | 3,641 | 0.7 | 483 | 1.2 | 132.75 |
| Renewables | 17,649 | 3.6 | 1,913 | 4.6 | 108.37 |
| **Total** | 495,361 | 100.0 | 41,633 | 100.0 | 84.04 |
| Load: | | | | | |
| Base load | 353,580 | 71.4 | 23,907 | 57.4 | 67.61 |
| Non-base load | 141,781 | 28.6 | 17,725 | 42.6 | 125.02 |
| **Total** | 495,361 | 100.0 | 41,633 | 100.0 | 84.04 |

*Source*: KPX.

*Note*:

(1) Includes sale of RECs by generation companies in the amount of Won 681 billion, which is equivalent to 1.6% of total sales.

| | For the year ended December 31, 2016 | | | | |
|---|---|---|---|---|---|
| | Volume | Percentage of Total Volume | Sales [1] | Percentage of Total Sales | Unit Price |
| | (Gigawatt hours) | (%) | (in billions of Won) | (%) | (Won/kWh) |
| **Generation Companies**: | | | | | |
| KHNP | 158,804 | 31.2 | 11,144 | 26.7 | 70.17 |
| KOSPO | 47,999 | 9.4 | 4,353 | 10.4 | 90.68 |
| KOMIPO | 42,925 | 8.4 | 3,733 | 8.9 | 86.96 |
| KOWEPO | 48,407 | 9.5 | 4,323 | 10.4 | 89.30 |
| KOSEP | 67,765 | 13.3 | 5,049 | 12.1 | 74.50 |
| EWP | 49,292 | 9.7 | 4,318 | 10.4 | 87.60 |
| Others | 94,042 | 18.5 | 8,791 | 21.1 | 93.47 |
| **Total** | 509,233 | 100.0 | 41,709 | 100.0 | 81.90 |
| **Energy Sources**: | | | | | |
| Nuclear | 154,310 | 30.3 | 10,479 | 25.1 | 67.91 |
| Bituminous coal | 199,539 | 39.2 | 15,575 | 37.3 | 78.05 |
| Anthracite coal | 7,071 | 1.4 | 627 | 1.5 | 88.70 |
| Oil | 13,280 | 2.6 | 1,450 | 3.5 | 109.50 |
| LNG | 111,814 | 22.0 | 11,196 | 26.8 | 100.09 |
| Pumped storage | 3,618 | 0.7 | 384 | 0.9 | 106.21 |
| Renewables | 19,601 | 3.8 | 1,998 | 4.8 | 101.92 |
| **Total** | 509,233 | 100.0 | 41,709 | 100.0 | 81.90 |
| **Load**: | | | | | |
| Base load | 351,880 | 68.6 | 25,995 | 61.9 | 73.87 |
| Non-base load | 157,353 | 31.4 | 15,713 | 38.1 | 99.86 |
| **Total** | 509,233 | 100.0 | 41,709 | 100.0 | 81.90 |

*Source*: KPX.

*Note*:

(1) Includes sale of RECs by generation companies in the amount of Won 1,181 billion, which is equivalent to 2.8% of total sales.

| | For the nine months ended September 30, 2016 | | | | |
|---|---|---|---|---|---|
| | Volume | Percentage of Total Volume | Sales [1] | Percentage of Total Sales | Unit Price |
| | (Gigawatt hours) | (%) | (in billions of Won) | (%) | (Won/kWh) |
| **Generation Companies**: | | | | | |
| KHNP | 124,893 | 32.8 | 8,295 | 27.4 | 66.42 |
| KOSPO | 34,538 | 9.1 | 3,062 | 10.1 | 88.66 |
| KOMIPO | 32,404 | 8.5 | 2,717 | 9.0 | 83.85 |
| KOWEPO | 35,005 | 9.5 | 3,107 | 10.3 | 88.76 |
| KOSEP | 50,546 | 13.3 | 3,666 | 12.1 | 72.53 |
| EWP | 36,354 | 9.2 | 3,229 | 10.7 | 88.82 |
| Others | 67,099 | 17.6 | 6,226 | 20.6 | 92.79 |
| **Total** | 380,840 | 100.0 | 30,302 | 100.0 | 79.57 |
| **Energy Sources**: | | | | | |
| Nuclear | 121,387 | 31.9 | 7,767 | 25.6 | 63.99 |
| Bituminous coal | 146,672 | 38.5 | 11,244 | 37.1 | 76.66 |
| Anthracite coal | 5,538 | 1.5 | 485 | 1.6 | 87.58 |
| Oil | 10,277 | 2.7 | 1,109 | 3.7 | 107.91 |
| LNG | 79,601 | 20.9 | 7,893 | 26.1 | 99.16 |
| Pumped storage | 2,735 | 0.7 | 288 | 1.0 | 105.30 |
| Renewables | 14,630 | 3.8 | 1,516 | 5.0 | 103.62 |
| **Total** | 380,840 | 100.0 | 30,302 | 100.0 | 79.57 |
| **Load**: | | | | | |
| Base load | 267,562 | 70.3 | 19,049 | 62.9 | 71.19 |
| Non-base load | 113,279 | 29.7 | 11,254 | 37.1 | 99.35 |
| **Total** | 380,840 | 100.0 | 30,302 | 100.0 | 79.57 |

*Source*: KPX.

*Note*:

(1) Includes sale of RECs by generation companies in the amount of Won 1,035 billion, which is equivalent to 3.4% of total sales.

| | For the nine months ended September 30, 2017 | | | | |
|---|---|---|---|---|---|
| | Volume | Percentage of Total Volume | Sales [1] | Percentage of Total Sales | Unit Price |
| | (Gigawatt hours) | (%) | (in billions of Won) | (%) | (Won/kWh) |
| **Generation Companies**: | | | | | |
| KHNP | 113,099 | 29.1 | 7,068 | 21.0 | 62.49 |
| KOSPO | 35,793 | 9.2 | 3,470 | 10.3 | 96.94 |
| KOMIPO | 37,609 | 9.7 | 3,603 | 10.7 | 95.80 |
| KOWEPO | 34,126 | 8.8 | 3,356 | 10.0 | 98.33 |
| KOSEP | 48,914 | 12.6 | 4,065 | 12.1 | 83.11 |
| EWP | 35,859 | 13.2 | 3,608 | 10.7 | 100.61 |
| Others | 83,296 | 21.4 | 8,546 | 25.3 | 102.60 |
| **Total** | 388,695 | 100.0 | 33,715 | 100.0 | 86.74 |
| **Energy Sources**: | | | | | |
| Nuclear | 109,057 | 28.1 | 6,467 | 19.2 | 59.30 |
| Bituminous coal | 168,134 | 43.3 | 14,561 | 43.2 | 86.60 |
| Anthracite coal | 3,334 | 0.9 | 323 | 1.0 | 96.74 |
| Oil | 4,096 | 1.1 | 702 | 2.1 | 171.30 |
| LNG | 83,752 | 21.5 | 9,515 | 28.2 | 113.60 |
| Pumped storage | 3,248 | 0.8 | 352 | 1.0 | 108.48 |
| Renewables | 17,075 | 4.4 | 1,796 | 5.3 | 105.18 |
| **Total** | 388,695 | 100.0 | 33,715 | 100.0 | 86.74 |
| **Load**: | | | | | |
| Base load | 270,799 | 69.7 | 20,574 | 61.0 | 75.98 |
| Non-base load | 117,896 | 30.3 | 13,141 | 39.0 | 111.47 |
| **Total** | 388,695 | 100.0 | 33,715 | 100.0 | 86.74 |

*Source*: KPX.

*Note*:

(1) Includes sale of RECs by generation companies in the amount of Won 1,212 billion, which is equivalent to 3.6% of total sales.

### *Our Sales of Electricity*

The tables below set forth our electricity sales, depending on the energy sources and a breakdown of base load and non-base load electricity sales in 2014, 2015, 2016 and the nine months ended September 30, 2016 and 2017 based on our internal data.

| | For the year ended December 31, 2014 | | | | |
|---|---|---|---|---|---|
| | Volume | Percentage of Total Volume | Sales to KEPCO[(1)] | Percentage of Total Sales | Unit Price |
| | (Gigawatt hours) | (%) | (in billions of Won) | (%) | (Won/kwh) |
| Energy Sources: | | | | | |
| Bituminous coal | 30,026 | 52.9 | 1,871 | 30.3 | 62.31 |
| Oil | 1,387 | 2.4 | 334 | 5.4 | 240.81 |
| LNG | 25,212 | 44.4 | 3,949 | 64.0 | 156.63 |
| Renewable | 102 | 0.2 | 19 | 0.3 | 186.27 |
| Total | 56,727 | 100.0 | 6,173 | 100.0 | 108.82 |
| Load: | | | | | |
| Base load | 31,308 | 55.2 | 2,160 | 35.0 | 68.99 |
| Non-base load | 25,419 | 44.8 | 4,013 | 65.0 | 157.87 |
| Total | 56,727 | 100.0 | 6,173 | 100.0 | 108.82 |

*Note*:

(1) The information regarding sales in the table above differs from the amount of our electricity sales recorded by KPX due to the exclusion of our sale of RECs, which is recognized and recorded at various points in time in the previous year that are not always aligned with the KPX system.

| | For the year ended December 31, 2015 | | | | |
|---|---|---|---|---|---|
| | Volume | Percentage of Total Volume | Sales to KEPCO[(1)] | Percentage of Total Sales | Unit Price |
| | (Gigawatt hours) | (%) | (in billions of Won) | (%) | (Won/kwh) |
| Energy Sources: | | | | | |
| Bituminous coal | 30,465 | 65.1 | 2,051 | 48.2 | 67.32 |
| Oil | 1,303 | 2.8 | 224 | 5.3 | 171.91 |
| LNG | 14,959 | 32.0 | 1,966 | 46.2 | 131.43 |
| Renewable | 91 | 0.2 | 11 | 0.3 | 120.88 |
| Total | 46,819 | 100.0 | 4,252 | 100.0 | 90.82 |
| Load: | | | | | |
| Base load | 31,704 | 67.7 | 2,246 | 52.8 | 70.84 |
| Non-base load | 15,115 | 32.3 | 2,006 | 47.2 | 132.72 |
| Total | 46,819 | 100.0 | 4,252 | 100.0 | 90.82 |

*Note*:

(1) The information regarding sales in the table above differs from the amount of our electricity sales recorded by KPX due to the exclusion of our sale of RECs, which is recognized and recorded at various points in time in the previous year that are not always aligned with the KPX system.

| | For the year ended December 31, 2016 | | | | |
|---|---|---|---|---|---|
| | Volume | Percentage of Total Volume | Sales to KEPCO[(1)] | Percentage of Total Sales | Unit Price |
| | (Gigawatt hours) | (%) | (in billions of Won) | (%) | (Won/kwh) |
| Energy Sources: | | | | | |
| Bituminous coal | 31,256 | 65.1 | 2,385 | 57.4 | 76.31 |
| Oil | 1,314 | 2.7 | 180 | 4.3 | 136.99 |
| LNG | 15,334 | 31.9 | 1,579 | 38.0 | 102.97 |
| Renewable | 96 | 0.2 | 9 | 0.2 | 93.75 |
| Total | 47,999 | 100.0 | 4,153 | 100.0 | 86.52 |
| Load: | | | | | |
| Base load | 32,509 | 67.7 | 2,539 | 61.1 | 78.10 |
| Non-base load | 15,490 | 32.3 | 1,614 | 38.9 | 104.20 |
| Total | 47,999 | 100.0 | 4,153 | 100.0 | 86.52 |

*Note*:

(1) The information regarding sales in the table above differs from the amount of our electricity sales recorded by KPX due to the exclusion of our sale of RECs, which is recognized and recorded at various points in time in the previous year that are not always aligned with the KPX system.

| | For the nine months ended September 30, 2016 | | | | |
|---|---|---|---|---|---|
| | Volume | Percentage of Total Volume | Sales to KEPCO[(1)] | Percentage of Total Sales | Unit Price |
| | (Gigawatt hours) | (%) | (in billions of Won) | (%) | (Won/kwh) |
| Energy Sources: | | | | | |
| Bituminous coal | 22,710 | 65.8 | 1,652 | 57.3 | 72.74 |
| Oil | 1,033 | 3.0 | 136 | 4.7 | 131.66 |
| LNG | 10,727 | 31.1 | 1,090 | 37.8 | 101.61 |
| Renewable | 68 | 0.2 | 6 | 0.2 | 88.24 |
| Total | 34,538 | 100.0 | 2,884 | 100.0 | 83.50 |
| Load: | | | | | |
| Base load | 23,700 | 68.6 | 1,769 | 61.3 | 74.64 |
| Non-base load | 10,838 | 31.4 | 1,115 | 38.7 | 102.88 |
| Total | 34,538 | 100.0 | 2,884 | 100.0 | 83.50 |

*Note*:

(1) The information regarding sales in the table above differs from the amount of our electricity sales recorded by KPX due to the exclusion of our sale of RECs, which is recognized and recorded at various points in time in the previous year that are not always aligned with the KPX system.

| | For the nine months ended September 30, 2017 | | | | |
|---|---|---|---|---|---|
| | Volume | Percentage of Total Volume | Sales to KEPCO[(1)] | Percentage of Total Sales | Unit Price |
| | (Gigawatt hours) | (%) | (in billions of Won) | (%) | (Won/kwh) |
| Energy Sources: | | | | | |
| Bituminous coal | 27,196 | 76.0 | 2,170 | 65.1 | 79.79 |
| Oil | 948 | 2.6 | 163 | 4.9 | 171.94 |
| LNG | 7,585 | 21.2 | 994 | 29.8 | 131.05 |
| Renewable | 64 | 0.2 | 7 | 0.2 | 109.38 |
| Total | 35,793 | 100.0 | 3,334 | 100.0 | 93.15 |
| Load: | | | | | |
| Base load | 28,069 | 78.4 | 2,304 | 69.1 | 82.08 |
| Non-base load | 7,724 | 21.6 | 1,030 | 30.9 | 133.35 |
| Total | 35,793 | 100.0 | 3,334 | 100.0 | 93.15 |

*Note*:

(1) The information regarding sales in the table above differs from the amount of our electricity sales recorded by KPX due to the exclusion of our sale of RECs, which is recognized and recorded at various points in time in the previous year that are not always aligned with the KPX system.

### *Cost-based Pool System*

Currently, other than in limited circumstances under the CES and certain exceptional transactions stipulated under the Enforcement Decree of the Electricity Business Act, the purchase and sale of electricity in Korea is required to be made through the KPX. The pricing of electricity in the Korean electricity market is based on the "cost-based pool" system and is determined principally based on the variable cost of generating electricity, adjusted by an adjustment factor that varies depending on fuel sources. See "The Korean Electricity Industry — Power Purchase — Cost-based Pool System."

### *Demand Trends in Korea*

The rapid growth in Korea's economy since the early 1960s has resulted in substantial growth in the demand for electricity. Consumption levels, particularly during periods of peak demand, continue to press the limits of available supply.

According to KEPCO, demand for electricity in Korea grew at a compounded average rate of 1.8% per annum for the five years ended December 31, 2016, and total demand for electricity in Korea increased by 0.6% in 2014, 1.3% in 2015 and 2.8% in 2016, in each case, year on year. The GDP growth rate at chained 2010 year prices was 3.3% in 2014, 2.6% in 2015 and 2.7% in 2016, in each case, year on year based on preliminary data from the Bank of Korea.

The table below sets forth, for the periods indicated, the annual rate of growth in Korea's GDP as published by the Bank of Korea and the annual rate of growth in electricity demand (measured in total annual electricity consumption) as published by KEPCO.

| | For the year ended December 31. | | | | |
|---|---|---|---|---|---|
| | **2012** | **2013** | **2014** | **2015** | **2016** |
| Growth in GDP (at chained 2010 year prices) | 2.3% | 2.9% | 3.3% | 2.6% | 2.7%[1] |
| Growth in electricity consumption | 2.5% | 1.8% | 0.6% | 1.3% | 2.8% |

*Source:* KEPCO; Bank of Korea

*Note:*

(1) Preliminary.

The demand for electricity varies depending on the season and the time of day. Demand is generally higher during the summer and winter seasons due to the use of air conditioners and heaters, respectively, and during daylight hours due to commercial and industrial activity. Variations in weather conditions may also cause significant variations in demand for electricity.

***Demand by Class of Customer***

The table below sets forth the consumption of electric power by class of customer for the periods indicated.

| | For the year ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | **2012** | **2013** | **2014** | **2015** | **2016** | **% of Total 2016** |
| | | | **(gigawatt hours)** | | | **(%)** |
| Industrial | 258,102 | 265,373 | 272,552 | 273,548 | 278,828 | 56.1 |
| Commercial | 101,593 | 102,196 | 100,761 | 103,679 | 108,617 | 21.9 |
| Residential | 65,484 | 65,815 | 64,457 | 65,619 | 68,057 | 13.7 |
| Agricultural | 12,776 | 13,866 | 14,505 | 15,702 | 16,580 | 3.3 |
| Others[1] | 28,638 | 27,599 | 25,317 | 25,107 | 24,957 | 5.0 |
| Total | 466,593 | 474,849 | 477,592 | 483,655 | 497,039 | 100.0 |

*Source:* KEPCO

*Note:*

(1) Consists of consumption for education, street lighting and overnight power.

The industrial sector represents the largest segment of electricity consumption in Korea. Demand from the industrial sector has steadily increased as a result of a general increase in industrial production. Demand from the industrial sector increased by 1.9% to 278,828 gigawatt hours in 2016 compared to 2015.

Demand from the commercial sector has also generally increased in recent years. The continued expansion of the service sector of the Korean economy has resulted in increased office building construction, office automation and use of air conditioners. Growth in the commercial sector is also attributable to the construction industry and the expansion of the leisure and distribution industries. Demand from the commercial sector increased by 4.8% to 108,617 gigawatt hours in 2016 compared to 2015.

Continuing increase in demand from the residential sector is due primarily to increased use of air conditioners and other electrical appliances. Demand from the residential sector increased by 3.7% to 68,057 gigawatt hours in 2016 compared to 2015.

**Power Development**

In January 2014, the Government announced the Second Basic National Energy Plan, which is a comprehensive plan that covers the entire spectrum of energy industries in Korea, for the period from 2013 to 2035. The Second Basic National Energy Plan focuses on the following six key tasks: (i) shifting the focus of energy policy to demand management with a goal of reducing electricity demand by 15% by 2035, (ii) establishing a geographically decentralized electricity generation system so as to reduce transmission losses with a goal of supplying at least 15% of total electricity through such system by 2035, (iii) applying latest greenhouse gas emission reduction technologies to newly constructed generation units in order to further promote safety and environmental friendliness, (iv) strengthening exploration and procurement capabilities to enhance Korea's energy security and to ensure stable supply of energy and increasing the portion of electricity supplied from renewable sources to 11% by 2035, (v) reinforcing the system for stable supply of conventional energy, such as oil and gas and (vi) introducing in 2015 an energy voucher system in lieu of a tariff discount system for the benefit of consumers in the low income group. In addition, the Second Basic National Energy Plan revised the target level of nuclear generation capacity in Korea's electricity supply mix to 29%, compared to 41% under the First Basic National Energy Plan announced in 2008.

In December 2017, the Government released the Eighth Basic Plan which serves as the guideline for stable medium- and long-term supply of electric power. The objectives of the Eighth Basic Plan include, among other things, (i) increasing efforts to address environmental and safety concerns, including reducing greenhouse gas emission and yellow dust, (ii) decreasing the portion of electricity supplied using nuclear and coal energy sources including through suspension of construction of new nuclear power plants, permanent closing of old coal-fired generation units and converting coal-fired generation units into LNG-fired generation units, (iii) increasing the portion of electricity supplied from renewable energy, in particular solar and wind power, and (iv) promoting the replacement of coal with LNG as an energy source by reducing the gap in expenses incurred in using the respective fuel types, for example, by adjusting the consumption tax rates applicable to the respective fuel types.

**Capital Investment Program**

According to the Eighth Basic Plan, the ratio of reserve power required to peak power demand at any future point in time is set at 19% from 2018 to 2025, and 22% from 2026 to 2031, and the total nominal capacity of all generating facilities in Korea in 2031 is expected to be 174.5 gigawatts, of which nuclear power plants are expected to contribute 11.7%, coal-fired plants 22.9%, LNG plants 27.2%, renewable energy plants 33.6% and other plants 4.6%. In accordance with the objectives of the Eighth Basic Plan, we intend to add new installed capacity, primarily in renewable energy.

Our capital expenditures, which represent the sum of purchases of property, plant and equipment and intangible assets in our statements of cash flows, were Won 1,887 billion in 2014, Won 962 billion in 2015, Won 706 billion in 2016, Won 497 billion for the nine months ended September 30, 2016 and

Won 460 billion for the nine months ended September 30, 2017. In March 2014, we commenced commercial operations of an LNG-combined cycle unit in Andong with an installed capacity of 417 megawatts. In addition, we commenced commercial operations of Samcheok Green Power units no. 1 and 2, each of which is a high-efficiency coal-fired unit with an installed capacity of 1,022 megawatts, in December 2016 and June 2017, respectively. In the short term, we are pursuing plans to construct additional LNG-fired units in Nam Jeju and Sejong, each with an installed capacity of 125 megawatts and 515 megawatts, respectively. In the long term, we plan to construct additional LNG-fired units on idle plots of land owned by us in Samcheok.

In addition, we are planning to increase our investments in renewable energy generation in order to meet our annual RPS obligations. For example, we are currently in the process of constructing a 32-megawatt wind power plant in Jeongam, to be completed by October 2018. We participate in these projects through our investments in IPP and CES activities, to which we plan to continue to contribute our resources.

The actual number and capacity of generation units we construct and the timing of such construction will depend upon a variety of factors, including demand growth projections, availability and cost of financing, changes in fuel prices and availability of fuel, ability to acquire necessary plant sites, environmental considerations, community opposition and other factors.

The table below sets forth for 2017, 2018, 2019 and 2020 the budgeted amounts of our capital expenditures and investment in associates and joint ventures pursuant to our capital investment program. The budgeted amounts may vary from the actual amounts of our capital expenditures for a variety of reasons, including changes in the number of units to be constructed and the timing of such construction, changes in rates of exchange between the Won and foreign currencies, changes in interest rates and other factors.

| | For the year ended December 31, | | | |
|---|---|---|---|---|
| | 2017[1] | 2018 | 2019 | 2020 |
| | (in billions of Won) | | | |
| Maintenance of existing generation facilities | 324 | 335 | 359 | 263 |
| Construction of new generation facilities | 254 | 207 | 241 | 386 |
| Investments in domestic IPP and CES activities | 51 | 142 | 99 | 82 |
| Investments in overseas IPP and resources development projects | 121 | 79 | 123 | 79 |
| Others[2] | 10 | 39 | 51 | 52 |
| Total | 760 | 802 | 873 | 862 |

*Notes:*

(1) Includes amounts expended through September 30, 2017.

(2) Miscellaneous expenditures for investments and maintenance of non-generation and ancillary facilities.

### *Power Plant Refurbishment and Recommissioning*

We supplement power generation capacity through refurbishing or recommissioning our power plant units, which includes installation of anti-pollution devices, modification of control systems and overall rehabilitation of existing equipment. Ensuring the reliability of our equipment is critical to our operations.

The useful life of each type of units without substantial refurbishment is approximately 30 years for thermal and combined cycle units. Substantial refurbishment can extend the useful lives of thermal units by an additional ten years or more. For example, we are currently in the process of rationalizing the capacity of, and refurbishing existing equipment in, some of the older units of our Hadong power plant complex, which we anticipate will be completed by December 2029.

**Independent Power Producer and Community Energy System Projects**

Based on our more than 30 years of experience in operating and maintaining power plants, we have become involved in a number of domestic and overseas IPP projects in recent years, both as an investor and plant operator.

We collaborate with a number of IPPs that specialize in the construction and operation of power plants fueled by renewable energy. For example, in the wind power industry, Taebaek Wind Power Co., Ltd., Changjuk Wind Power Co., Ltd. and Pyeongchang Wind Power Co., Ltd., among others, have made significant investments in the construction of wind power plants throughout various regions of Korea, including Taebaek, Changjuk and Pyeongchang. In addition to providing funding for the activities of these IPPs, we jointly operate and manage the power plants once construction has been completed. As of September 30, 2017, we held a 25%, 30% and 25% equity interest in each of the three IPPs above, respectively. We also invest in IPPs engaged in the solar energy business, such as KnH Solar Co., Ltd., in which we held a 27% equity interest as of September 30, 2017.

We expect to leverage our expertise in other IPP projects in the future. We believe that such activities will help us to diversify our revenue streams and leverage our operational experience gathered from overseeing our power plants. Please see "—Overseas Activities" for a description of our overseas IPP projects.

We also participate in CES projects in Daegu, Yangju and Osan through IPPs located in such areas. For example, we have a 29% equity interest in Daegu Green Power Co., Ltd., which began supplying heat and electricity to Daegu Innovation City and surrounding residential areas in Daegu starting from December 2014. For the nine months ended September 30, 2017, Daegu Green Power Co., Ltd. generated 140,466 megawatts of electricity and sales of Won 187 billion.

**Overseas Activities**

We are actively engaged in a number of overseas IPP and resource development projects. Our overseas IPP projects help us apply our operational experience and add new revenue streams, while our overseas resource development activities help us establish strategic relationships with companies that are supplying or may supply fuel to us. The table and descriptions set forth below summarize the material overseas projects that we were pursuing as of September 30, 2017.

| Country | Project Period | Project Description | Invested Capital to September 30, 2017 | Equity Interest as of September 30, 2017 |
|---|---|---|---|---|
| Jordan | 2009~ | Operation and maintenance of power plants | USD 0.3 million | 100.0% |
| Chile | 2014~ | Operation and maintenance of power plants | USD 110.0 million | 65.0% |
| Indonesia | 2016~ | Resource development in Bayan | Won 80.5 billion | 4.0% |
| Australia | 2007~ | Resource development in Moolarben | AUD 24.0 million | 1.25% |
| Australia | 2016~ | Resource development in Bylong | AUD 7.0 million | 2.0% |

*IPP Projects*

- We entered into a joint venture with Daelim Energy in April 2016 to construct a wind farm consisting of 15 wind power generators, each with an installed capacity of 45 megawatts, in Tafilah, Jordan. The construction is expected to begin in 2018 and be completed by 2020. Upon completion of the construction, we will provide operation and maintenance services. We operate through Daehan Wind Power PSC, a joint venture in which we held slightly more than a 50% interest as of September 30, 2017.

- We and Samsung C&T, as a consortium, completed the construction of an LNG-combined cycle power plant with an installed capacity of 517 megawatts in Antagofagasta, Chile, in May 2017. We currently provide operations and maintenance services. Through KOSPO Chile SpA, our wholly-owned subsidiary, we held a 65% equity interest in Kelar S.A., an entity established through the consortium to facilitate the services we provide, as of September 30, 2017.

*Resource Development Projects*

- In December 2016, pursuant to the June 2016 Government Plan, KEPCO divested its 20% equity interest in PT Bayan Resources Tbk ("Bayan") and sold a 4% equity interest for Won 80.5 billion to each of the five non-nuclear Generation Subsidiaries, including us. Bayan is a leading coal producer in Indonesia.

- In January 2008, we and three other non-nuclear Generation Subsidiaries and KEPCO were part of a Korean consortium that acquired a 10% interest in a coal mine project located in Moolarben, New South Wales, Australia. The Moolarben project began production of bituminous coal in May 2010. In December 2016, pursuant to the June 2016 Government Plan, KEPCO divested its 1% interest in the Moolarben project and sold 0.25% to each of the four Generation Subsidiaries, including us, raising each of our interests to 1.25%. The four Generation Subsidiaries have a coal off-take agreement for 2.5 million tons of bituminous coal per annum.

- In December 2016, pursuant to the June 2016 Government Plan, KEPCO sold a 2% equity interest in KEPCO Bylong Australia Pt., Ltd., a KEPCO subsidiary developing the Bylong coal mines located in New South Wales, Australia, to each of the five non-nuclear Generation Subsidiaries, including us, for AUD 70.3 million each. The Bylong project is still in the developmental stage.

**Environment**

The Environment Policy Basic Act of 1990 and other related legislation and regulations (the "Environment Acts"), which are principally administered by the Ministry of Environment, regulate atmospheric emissions, waste water and other emissions from our generation units. See "Risk Factors—Environmental regulations may adversely affect our operations." We believe that our generation units are currently in substantial compliance with the requirements of the Environment Acts.

Atmospheric emissions from generation plants burning fossil fuels include, among other things, sulfur dioxides, nitrogen oxides and dust. The Environment Acts establish emissions standards relating to, among other things, sulfur oxides, nitrogen oxides and dust. Such standards have become more stringent in recent years to reduce the amount of permitted emissions. Currently, Flue Gas Desulfurization ("FGD") systems are installed in ten units at our Hadong and Nam Jeju power plant

complexes to reduce sulfur oxide emissions. We have installed Electrostatic Precipitation systems in 12 units at all of our power plant complexes except our combined cycle units to reduce dust emissions and minimize the unintended dispersion of powderized coal. We have also installed Selective Catalytic Reduction systems, which reduce nitrogen oxide ("NOx") emissions, in 13 units at our Hadong, Nam Jeju, Samcheok and Andong power plant complexes. In addition, we have installed DeNOx systems, such as the Low NOx Burner and Over Fired Air systems, in 34 units at our Shin Incheon, Busan and Youngwol power plant complexes. The installation of such emissions control equipment may also result in increased operating costs. The actual costs of installation and operation of such equipment will depend upon a variety of factors, including, among other things, modifications to emissions limits and the amount of power such equipment will consume. In order to comply with current and expected environmental standards and address related legal and social concerns, we intend to continue to install additional equipment and make related capital expenditures. Our currently budgeted amounts for facilities related to compliance with environmental regulation are Won 13 billion, Won 11 billion and Won 5 billion for 2017, 2018 and 2019, respectively.

The Environment Acts also prescribe maximum permissible levels of pollutants that can be contained in waste water. We operate waste water purification facilities so that the level of waste water discharged from our power plant complexes fall within permissible levels. All waste materials discharged from our power plant complexes are collected, separated and temporarily stored until they are safely transported to appropriate waste sites. In addition, all of our coal-fired units are equipped with ash-ponds to store coal ashes.

In order to minimize the level of noise and vibration pollution, we have erected sound barrier walls at strategic locations and installed silencers and vibration mufflers on certain equipment.

To ensure compliance with the requirements of the Environment Acts, we have installed automatic computerized monitoring systems at strategic locations at our power plant complexes. These monitoring systems constantly measure the level of pollutants being discharged from our power plant complexes and transmit such information via modem to a main server, which then further transmits such information to our headquarters and the relevant governmental agencies through the Internet.

Prior to the construction of a power generation unit, we must perform an environmental impact assessment which is designed to evaluate public hazards, damage to the environment and concerns of local residents. A report reflecting this evaluation and proposed measures to address the problems identified must be submitted to and approved by the Ministry of Environment prior to the construction of the unit. We are then required to implement the measures reflected in the approved report.

We have received ISO 14001 certification for our environmental management system. We are also taking steps to ensure compliance with the Kyoto Protocol and the Paris Agreement, including planned constructions of biomass power, wind power, photovoltaic power, fuel cell, bio-dual fuel and carbon capture and electricity storage system units.

**Competition**

The electricity industry is in the process of liberalization and deregulation, beginning with the establishment of the Generation Subsidiaries, including us, in April 2001, in accordance with the Restructuring Plan. In 2016, over 80% of electricity demand in Korea was supplied by us and the other Generation Subsidiaries. We compete principally with the four other non-nuclear Generation Subsidiaries and, to a lesser extent, as described below, KHNP. In addition, we compete with IPPs on a limited basis. As of September 30, 2017, there were 14 IPPs in Korea based on data from the Independent Power Producer Association.

High initial investment costs are an effective barrier to entry for newcomers in the industry. Cost and service quality are the most important determining factors in respect of competition in the Korean electricity generation industry. For the respective market shares of the Generation Subsidiaries, including us, in terms of sales to KEPCO based on trading results on the KPX in 2014, 2015, 2016 and the nine months ended September 30, 2017, see "— Sales and Purchase of Power — Sales to KEPCO." Historically, demand for electricity has grown at a rate exceeding the growth of Korea's GDP. However, the rate of growth in demand for electricity has slowed in recent years as Korean economy has matured, and we expect that competition for the sale of electricity generated will become more intense as the other Generation Subsidiaries and the IPPs ramp up their installed capacity of LNG and renewable energy generation in their product mix in accordance with the Eighth Basic Plan.

We believe that we and the other non-nuclear Generation Subsidiaries do not compete directly with KHNP due to the inherent difference in cost structures between non-nuclear Generation Subsidiaries and the nuclear Generation Subsidiary. In general, the cost of generating power is lower for the nuclear Generation Subsidiary than for non-nuclear Generation Subsidiaries.

**Deregulation**

The Korean electricity industry has been undergoing deregulation since 1999. For a description of the deregulation process, see "The Korean Electricity Industry — Restructuring of the Electricity Industry in Korea."

Pursuant to the Electricity Business Act, the Government established the KOREC in April 2001 to regulate the Korean electricity industry and to ensure fair competition. All of the Generation Subsidiaries, including us, are under the general supervision of the KOREC.

The Electricity Business Act administered by the MOTIE requires that licenses be obtained in relation to the generation of electricity for sale to others, with limited exceptions. Each of the Generation Subsidiaries, including us, is deemed to possess an electricity generation license and other governmental approvals (which KEPCO possessed prior to April 2, 2001, pursuant to the Law on Promotion of Restructuring of Electricity Power Industry).

Our operations are subject to a number of laws and regulations relating to environmental protection and safety. See "— Environment" above.

**Research and Development**

We maintain a research and development ("R&D") program concentrated on developing self-reliant core technology and, in cooperation with KEPCO, leading national technology advancement in the electric power generation business.

Our R&D activities and those of the other Generation Subsidiaries are principally carried out by the Korea Electric Power Research Institute ("KEPRI"), KEPCO's research center in Daejeon, Korea. Similar to the other Generation Subsidiaries, we supervise and finance R&D activities being performed by KEPRI, including joint studies co-sponsored by the other Generation Subsidiaries.

In 2014, 2015, 2016 and the nine months ended September 30, 2017, we were involved in 58, 43, 41 and 45 R&D projects, respectively. In 2018, we plan to undertake 49 R&D projects, which will involve improving technologies relating to power generation, among others.

We invested in R&D approximately Won 22 billion, Won 24 billion, Won 26 billion and Won 17 billion, constituting approximately 0.4%, 0.6%, 0.6% and 0.5% of our sales in 2014, 2015, 2016, and the nine months ended September 30, 2017, respectively. In 2018, we plan to invest approximately Won 30 billion in R&D.

**Patents, Utility and Trademark**

As of September 30, 2017, we owned 306 patents and 84 utility model rights, including co-owned patents and utility model rights, and had 92 patent applications and 20 utility model rights applications pending in Korea. Most of the patents and utility model rights relate to generation processes and generator maintenance tools. We believe that our patents and utility model rights are vital to our power generation and R&D activities. As of September 30, 2017, we also owned 14 trademarks.

The period of protection offered under current Korean legislation (i) with respect to a patent commences upon registration thereof and ends 20 years from the filing date, (ii) with respect to a utility model right commences upon registration thereof and ends ten years from the filing date and (iii) with respect to a trademark is ten years from registration with the option to renew for an additional ten years indefinitely.

**Insurance**

We have obtained a general commercial insurance policy to insure against fire and natural disasters up to Won 12,831 billion and mechanical accidents up to Won 4,312 billion. We also have marine cargo insurance in respect of imported fuel and procurement with insurance coverage of US$23 million per shipment, as well as general vehicle insurance. We also maintain directors' and officers' liability insurance.

Our insurance and indemnity policies do not cover all of the assets that we own and operate and do not cover all types or amounts of loss which could arise in connection with the ownership and operation of our power plants, and material financial consequences could result from a significant accident. We also do not carry insurance for business interruptions. In addition, we do not carry insurance against terrorist attacks. As a result, significant accidents with damages over our "per occurrence" limit, or the occurrence of events for which we are not insured, may have a material adverse impact on our financial condition and results of operations.

**Property, Plant and Equipment**

Our property consists mainly of power generation equipment and facilities in Korea. See "— Power Generation" and "— Capital Investment Program." As of September 30, 2017, the net book value of our property, plant and equipment was Won 8,467 billion. No significant portion of our properties is leased.

In June 2005, the Korean government announced its policy to relocate the headquarters of select government-invested enterprises, including KEPCO and the Generation Subsidiaries, from their current locations in the Seoul metropolitan area to other provinces in Korea. Pursuant to this policy, we relocated our headquarters to Busan in 2014.

**Legal and Regulatory Proceedings**

We are subject to the risk of legal claims and regulatory actions in the ordinary course of our business, which may expose us to substantial monetary damages and legal costs, injunctive relief, criminal and civil penalties, sanctions against our management and employees and regulatory restrictions on our operations, as well as reputational harm. As of September 30, 2017, we have been named as a defendant in 31 lawsuits for claimed damages of approximately Won 61 billion in the aggregate.

In June 2016, a consortium comprised of three Korean construction companies (Hyundai Engineering & Construction Co., Ltd., GS Engineering & Construction Corp. and Hansol SeenTec Co., Ltd.) contracted by us to engage in the construction of our Samcheok Green Power units (the "Consortium") filed a request for arbitration against us demanding compensation in the amount of Won 350 billion for additional costs incurred by the Consortium due to delays in the construction process. The final result of the arbitration is expected to be announced in April 2018. In December 2016, while the arbitration was pending at the Korean Commercial Arbitration Board, we filed a lawsuit against the Consortium for payment of liquidated damages amounting to Won 160 billion with the Seoul Central District Court. As of September 30, 2017, we have not recognized any provision in connection with the proceedings above. We intend to vigorously defend against the Consortium's claims, but there can be no assurance that the outcome will be favorable to us.

As of September 30, 2017, we are subject to a number of class action and individual lawsuits involving hundreds of our current and former employees with an aggregate claim amount of Won 48 billion based on claims for unpaid ordinary wages. We have set aside a reserve on a consolidated basis in the aggregate amount of Won 5 billion to cover any potential future payments of additional ordinary wage in relation to the related lawsuits. See "Risk Factors—We may be exposed to potential claims made by current or previous employees for unpaid wages and may also incur increased labor costs as a result of the expansion of the scope of ordinary wages."

The outcome of these proceedings cannot presently be determined. We cannot presently assure you that there will not be further lawsuits in relation to aforementioned matters or that the reserve amount that we have set aside will be sufficient to cover any compensation or damages arising from the present or future litigation. However, our management believes that the ultimate disposition of these cases will not have a materially adverse impact on our operations or financial position.

## Employees

As of September 30, 2017, we had 2,175 regular employees, consisting of 2,150 full-time and 18 part-time employees, as well as seven temporary employees. The following table sets forth the number of our employees at our various work locations as of September 30, 2017.

| Location | Number of Employees |
|---|---|
| Head office in Busan | 344 |
| Hadong Thermal and Photovoltaic Power Plant Complex | 620 |
| Samcheok Thermal Power Plant Complex | 303 |
| Busan Combined Cycle and Photovoltaic Power Plant Complex | 263 |
| Shin Incheon Combined Cycle and Photovoltaic Power Plant Complex | 224 |
| Youngwol Combined Cycle Power Plant Complex | 112 |
| Andong Combined Cycle Power Plant Complex | 102 |
| Nam Jeju Thermal, Photovoltaic and Small Hydro Power Plant Complex, Hanlim Combined Cycle Power Plant Complex, and Hankyung and Seongsan Wind Power Plant Complexes | 190 |
| Overseas | 17 |
| Total | 2,175 |

We grant our employees annual increases in basic wages and quarterly bonuses in accordance with the wage guidelines set by the Government. Under the guidelines applicable to Public Enterprises pursuant to the Act on the Management of Public Institutions, we may increase average wages up to 3.5% on a year-on-year basis for 2017. Although we are not obligated to follow these Government-issued guidelines, it is our policy to increase our budget for labor cost within these guidelines. Wages increased by an average of 1.4% in 2014, 3.5% in 2015 and 2.7% in 2016 in accordance with the Government guidelines then in effect.

We provide our employees with the national pension plan and medical insurance. With respect to the national pension plan, we generally match our employees' contributions in the amount of 4.5% of each employee's salary, and with respect to medical insurance, we match our employees' contributions in the amount of 3.1% of each employee's salary. In addition, we provide other benefits such as company housing, low-interest housing loans and high-school and university tuition support, the aggregate amount of which was Won 13.5 billion as of September 30, 2017.

As of September 30, 2017, approximately 71.2% of our employees were members of the Korea Southern Power Labor Union, which membership comprises entirely of our employees, and approximately 25.8% of our employees were members of the Korean Power Plant Industry Union, of which employees of other non-nuclear Generation Subsidiaries are also members. We negotiate a collective bargaining agreement every two years, except for wages, which are negotiated every year, with the Korea Southern Power Labor Union. The current collective bargaining agreement with the Korea Southern Power Labor Union was entered into in December 2017. Pursuant to applicable Korean law, an Employee-Employer Cooperation Committee, which is composed of up to ten representatives of management and up to ten union employee representatives, is required to be, and has been, established. The Committee meets periodically to discuss various labor issues.

The Restructuring Plan and the privatization plan for the Generation Subsidiaries have generated labor unrest. Labor unions to which our employees belong have voiced their opposition to the

Restructuring Plan from its inception, in particular with respect to the prospect of our privatization and the privatization of the other Generation Subsidiaries. On February 25, 2002, employees belonging to labor unions of the non-nuclear Generation Subsidiaries, including us, commenced a strike, which lasted six weeks, to protest the Government's plans to privatize us and the other Generation Subsidiaries. The Korean Confederation of Trade Unions ("KCTU"), the largest governing body of labor unions in Korea with over 800,000 members, negotiated with the Government on behalf of the labor unions. After prolonged negotiations with the Government, KCTU directed the labor unions of the non-nuclear Generation Subsidiaries to end their strike on April 2, 2002. We cannot assure you that a large-scale strike or any other work stoppages will not occur again in the future or that any such labor unrest will be satisfactorily resolved. Labor unrest may adversely affect our results of operations by severely disrupting the power supply as well as substantially hinder the implementation of the Government's plans.

**Related Party Transactions**

For our sale of electricity to KEPCO through KPX, see "— Sales and Purchase of Power" above.

As of September 30, 2017, we had a 7.1% ownership of KPX, which represents our capital contribution to KPX in the amount of Won 9 billion.

We employ KEPCO KPS Co., Ltd., KEPCO E&C Inc. and KEPCO KDN Co., Ltd., affiliates of KEPCO, for maintenance services for all our power generation facilities, design for power plant construction and data processing services.

For transactions and related account balances with related parties, including KEPCO and its subsidiaries, see Note 40 of our audited annual financial statements as of and for the years ended December 31, 2015 and 2014, Note 41 of our audited annual financial statements as of and for the years ended December 31, 2016 and 2015 and Note 39 of our unaudited consolidated interim financial statements as of September 30, 2017 and for the three-month and nine-month periods ended September 30, 2016 and 2017 included elsewhere in this Offering Circular.

We have an LNG purchase contract with KOGAS, a related party, with the quantity to be determined by mutual agreement.

**Share Ownership**

The following table sets forth certain information relating to our shareholder as of September 30, 2017 and as of the date hereof:

| Title of Class | Identity of Person or Group | Shares Owned | Percentage |
|---|---|---|---|
| Common stock | Korea Electric Power Corporation | 47,739,895 | 100.0% |

None of our directors and members of the administrative, supervisory or management bodies owns any share of our common stock.

## Directors and Senior Management

Under our articles of incorporation, our board of directors, consisting of not less than three and not more than fifteen directors, including the president, is vested with the power of management. The directors are classified into two categories: standing directors and non-standing directors. The number of standing directors must be less than one half the number of directors, which includes the president. The standing directors also presently constitute our executive officers.

The representative director, who acts as our president and a standing director, is appointed by the President of Korea through the following nomination process: the recommendation of two or more candidates by the officer recommendation committee, followed by the resolution of the Committee for Management of Public Institutions established under the Act on the Management of Public Institutions, followed by the resolution of our shareholders at the general meeting, followed by the nomination by the Minister of MOTIE. The standing directors are appointed by the president following the resolution of shareholders at a general meeting, except that any standing director who is to become a member of the audit committee must be appointed by the President of Korea following the nomination of two or more candidates by the officer recommendation committee, the resolution by the Committee for Management of Public Institutions, the resolution by our shareholders and the nomination by the Minister of MOSF. The non-standing directors are appointed by the Minister of MOSF following the nomination of two or more candidates by the officer recommendation committee, the resolution by the Committee for Management of Public Institutions and the resolution by our shareholders. The president serves as our chief executive officer, represents us and administers our day-to-day business in all matters not specifically designated as responsibilities of the board of directors.

The term of office of the president is three years and the term of office of a director is two years. Officers may be reappointed each year to one-year terms in accordance with the Act on the Management of Public Institutions. If an officer is reappointed, the recommendation of the officer recommendation committee is not required. If the president is reelected, the management contract set forth in our articles of incorporation must be re-executed, but the discussion of the officer recommendation committee under our articles of incorporation is not required.

The presence at board meetings of a majority of the board of directors constitutes a voting quorum and resolutions can be passed by a majority of the board of directors. The names, titles, and outside occupations, if any, of our current board of directors and the respective dates on which they took office are set forth below.

| Name | Age | Title | Outside Occupation | Position Held Since |
|---|---|---|---|---|
| Yoon, Jong Geun[(1)] | 67 | President & CEO | — | January 2016 |
| Ryu, Gu Hyun | 64 | Statutory Auditor | — | October 2016 |
| Lee, Jong Sik[(2)] | 58 | Standing Director | — | March 2014 |
| Ko, Myung Seok | 58 | Standing Director | — | January 2017 |
| Kim, Tae Nyun | 56 | Non-Standing Director | — | February 2015 |
| Kim, Bum Suk | 56 | Non-Standing Director | — | January 2016 |
| Kim, Hong Jin | 63 | Non-Standing Director | — | March 2017 |
| Huh, Jeung Soo | 57 | Non-Standing Director | Dean of Climate Change Department, Kyungpook National University | March 2017 |
| Kim, Tae Yeon | 50 | Non-Standing Director | Representative of SALAsoft | March 2017 |

*Notes:*

(1) Resigned on September 20, 2017. A successor president and CEO will be appointed by the President of Korea pursuant to the procedures described above.

(2) Concurrently serving as acting president and CEO since September 2017.

Jong Geun Yoon served as our president and CEO since January 2016. Mr. Yoon received a master's degree in business administration from Busan University. Prior to joining us, he served as a non-standing director of Korea Western Power Co., Ltd. Mr. Yoon resigned his position on September 20, 2017. Our new president and CEO will be appointed by the President of Korea pursuant to the procedures described above.

Gu Hyun Ryu has served as our statutory auditor since October 2016. Mr. Ryu received a master's degree in policy science from Saitama University. Previously, he was an auditor of Korea Asset Management Corporation and a director of autonomous administrative audit bureau at the Board of Audit and Inspection of Korea.

Jong Sik Lee, who has served as a standing director since March 2014, currently also serves as our acting president and CEO since September 2017. Mr. Lee received a master's degree in business administration from Hanyang University. He is currently also the head of our planning and management division. Previously, he was the head of our planning department and also the head of our management department.

Myung Seok Ko has served as a standing director since January 2017. Mr. Ko received a bachelor's degree in electrical engineering from Chosun University. He is currently the head of our technology division. Previously, he was the head of our future growth business department and also the head of our Hadong thermal power plant division.

Tae Nyun Kim has been a non-standing director since February 2015. Mr. Kim received a doctorate's degree in political science and diplomacy from Myongji University. Mr. Kim was previously the head of Busan Traffic Broadcasting Network and the head of Ulsan Traffic Broadcasting Network.

Bum Suk Kim has been a non-standing director since January 2016. Mr. Kim received a doctorate's degree in human resource development from Chung-Ang University. He is currently also a director of the Korea Security Science Association. Previously, he was a director of the Korean Presidential Security Service.

Hong Jin Kim has been a non-standing director since March 2017. Mr. Kim received a master's degree in development economics from Grenoble University. Previously, he was the head of the management support division at Korea Securities Depository and an audit and inspection officer of the Ministry of Strategy and Finance.

Jeung Soo Huh has been our non-standing director since March 2017. Mr. Huh received a doctorate's degree in material engineering from Massachusetts Institute of Technology. Mr. Huh currently also serves as dean of Climate Change Department at Kyungpook National University. Previously, he was the chairman of the board of Korea Energy Agency.

Tae Yeon Kim has been our non-standing director since March 2017. Ms. Kim received a master's degree in financial insurance from Dong-Eui University. She is currently also a representative of SALAsoft. Previously, she was the president and CEO of Leaders Surveying & Adjusting of Claim Co., Ltd.

**Board Committees and Practices**

Our articles of incorporation provide for the establishment of the audit committee and other committees as deemed necessary by our board of directors. The audit committee consists of three directors, at least two of whom must be non-standing directors. At least one of the audit committee

members must be an accounting or financial expert under article 37(2) of the Enforcement Decree of the Korean Commercial Code. In addition to the audit committee, we maintain committees related to managing ethics and safety, reviewing business investments and budgets and improving regulations.

The president's management contract provides for benefits upon termination of his employment. The president is only eligible for retirement and severance pay after more than one year of continuous service. For each year's employment, the payment amount for retirement and severance pay is equal to the average income for one month.

The terms for retirement and severance pay for standing directors (including the president) are determined in accordance with the internal regulations for executive benefits. Standing directors are only eligible for retirement and severance pay after retirement or upon death following one year of continuous service. Retiring standing directors receive an average month's worth of salary for every year served as a standing director.

**Compensation of Directors and Executive Officers**

For the nine-month period ended September 30, 2017, the aggregate amount of remuneration paid and accrued to the directors and executive officers, including the statutory auditor, as a group, was Won 530 million. The aggregate amount we set aside or accrued during the nine-month period ended September 30, 2017 to provide retirement and severance benefits for directors and executive officers, including the statutory auditor, was Won 35 million.

## TERMS AND CONDITIONS OF THE NOTES

*The following is a summary of the terms and conditions of the Notes to be issued by us under the Fiscal Agency Agreement (as defined below). The following statements do not purport to be a complete description of the Notes and the Fiscal Agency Agreement and are qualified in their entirety by reference to the provisions of the Notes and the Fiscal Agency Agreement.*

1. **General**

(a) This Note is one of a duly authorized issue of Notes of the Company in the initial aggregate principal amount of US$400,000,000 3.000% Notes due 2021 (the "Notes") issued or to be issued pursuant to a Fiscal Agency Agreement, dated as of January 29, 2018 (as amended from time to time, the "Fiscal Agency Agreement"), between the Company and The Bank of New York Mellon, as fiscal agent (such bank and its successors as such fiscal agent being hereinafter called the "Fiscal Agent"), the terms of which are hereby incorporated by reference. Capitalized terms used but not defined herein are used as defined in the Fiscal Agency Agreement. Copies of the Fiscal Agency Agreement are on file and available for inspection at the corporate trust office of the Fiscal Agent at 101 Barclay Street, New York, New York 10286, United States of America (the "Corporate Trust Office"), and reference thereto is made for a description of the rights and limitations of rights thereunder of the Holders of the Notes and the duties and immunities of the Fiscal Agent. In acting under the Fiscal Agency Agreement, the agents appointed by the Company thereunder are acting solely as agents for the Company and do not assume any obligation or relationship of agency or trust for or with the Holder of this Note. The Holders of Notes will be entitled to the benefits of, and be bound by and deemed to have notice of, all of the provisions of the Fiscal Agency Agreement. As used herein, the term "Holder" means the person in whose name a Note is registered in the Note Register (as defined in Condition 7(h) below).

(b) The Notes are issuable only as Notes in fully registered form without coupons in denominations of US$200,000 and any integral multiple of US$1,000 in excess thereof.

(c) The Notes constitute direct, unconditional, unsubordinated and, subject to the provisions of Condition 8, unsecured obligations of the Company and shall at all times rank *pari passu* and without any preference or priority among themselves and, subject to the provisions of Condition 8, with all other present and future direct, unconditional, unsubordinated and unsecured obligations of the Company, except as may be required by mandatory provisions of law.

2. **Payments**

(a) Payments of principal of and interest on this Note will be made in the legal currency of the United States of America.

(b) Payment of the principal of this Note shall be made, upon presentation and surrender hereof, by a United States Dollar check drawn on a bank that processes payments in United States Dollars, at the option of the person to whom interest is payable as provided below, either (i) at the Corporate Trust Office of the Fiscal Agent or (ii) subject to any laws or regulations applicable thereto and to the right of the Company to terminate the appointment of any such paying agency, at such other paying agencies as the Company may designate.

(c) Payments of interest on this Note shall be made by a U.S. dollar check drawn on a bank that processes payments in U.S. dollars mailed to the address of the person entitled thereto as

such address shall appear on the Note Register. The interest so payable on any Interest Payment Date will be paid to the person in whose name this Note is registered at the close of business on the fifteenth day preceding such Interest Payment Date (each, a "Record Date"), whether or not a business day, notwithstanding the cancellation, transfer or exchange of this Note subsequent to the Record Date and on or prior to such Interest Payment Date, and no interest otherwise so payable on any Interest Payment Date shall be paid on this Note if the name of its Holder was entered as such on the Note Register after the close of business on the Record Date next preceding such Interest Payment Date, except if and to the extent the Company shall default in the payment of the interest due on such Interest Payment Date, in which case such defaulted interest shall (unless paid together with principal of this Note in full other than on an Interest Payment Date) be paid to the person in whose name this Note is registered at the close of business on a subsequent record date (which shall be not less than five business days prior to the date of payment of such defaulted interest) established by notice given by mail by or on behalf of the Company to the Holders of Notes not less than 15 days preceding such subsequent record date. If interest is paid together with principal in full on a date that is not an Interest Payment Date, such interest shall be paid upon presentation and surrender of this Note to the Fiscal Agent in The City of New York or to a paying agent.

(d) Notwithstanding paragraphs (b) and (c) of this Condition, the Holder of this Note if it is a Global Note shall receive, and any Holder of at least US$10,000,000 in aggregate principal amount of Notes may by notice to the Fiscal Agent at least ten days prior to any Interest Payment Date elect to receive, payments of principal (upon presentation and surrender of this Note), and payments of interest due on and subsequent to such Interest Payment Date by wire transfer in immediately available funds to such bank account as such Holder may direct in writing.

(e) In any case where the date for the payment of any principal of or interest on any Note is not a day on which banking institutions at any place of payment are open for business in New York and Seoul (a "Business Day"), then payment of such principal or interest need not be made on such date at such place of payment but may be made on the next succeeding day at such place of payment which is a Business Day with the same force and effect as if made on the date for such payment of principal or interest, and no interest shall accrue for the period after such date.

(f) Any monies paid by the Company to the Fiscal Agent for the payment of the principal of or interest on any Notes and remaining unclaimed at the end of two years after such principal or interest shall have become due and payable and shall have been paid to the Fiscal Agent by the Company shall then be repaid to the Company, and upon such repayment, all liability of the Fiscal Agent with respect to such monies shall thereupon cease and the Holder of any Note representing a claim therefor shall thereafter look only to the Company for payment thereof.

3. **Interest**

(a) The Notes will be issued in an initial aggregate principal amount of US$400,000,000 and will mature at a price equal to 100% of the principal amount on January 29, 2021 (the "Maturity Date"). The Notes will bear interest at the rate of 3.000% per annum payable semi-annually in arrears on January 29 and July 29 of each year (each an "Interest Payment Date") with the first interest payment to be made on July 29, 2018.

(b) Each Note will cease to bear interest from and including its due date for redemption unless, upon due presentation, payment of the principal in respect of the Note is improperly withheld or refused or unless default is otherwise made in respect of payment. In such event, interest will continue to accrue until the date on which all amounts due in respect of such Note have been paid.

(c) When interest is required to be calculated in respect of a period of less than a full year, it shall be calculated on the basis of a 360-day year consisting of 12 months of 30 days each and, in the case of an incomplete month, the number of days elapsed on the basis of a month of 30 days.

4. **Optional Redemption Due to Changes in Tax Treatment**

The Notes may be redeemed at the option of the Company, in whole, but not in part, upon not less than 30 nor more than 60 days' notice, at any time at a redemption price equal to 100% of the principal amount thereof plus accrued interest to (but excluding) the date fixed for redemption if, as a result of (a) any change in or amendment to the tax laws or treaties of the Republic (or of any political subdivision or taxing authority thereof or therein) or any regulations or rulings promulgated thereunder or (b) any change in position regarding the application, administration or interpretation of such laws, treaties, regulations or rulings (including a holding, judgment or order by a court of competent jurisdiction), which change or amendment becomes effective on or after January 22, 2018, the Company is or would be obligated on the next succeeding due date for a payment with respect to the Notes to pay Additional Amounts (as described in Condition 6 below) with respect to the Notes, and such obligation cannot be avoided by the use of reasonable measures available to the Company; provided, however, that (i) no such notice of redemption may be given earlier than 60 days prior to the earliest date on which the Company would be obligated to pay such Additional Amounts, and (ii) at the time such notice of redemption is given, such obligation to pay such Additional Amounts remains in effect. Before giving any notice of such redemption, the Company shall deliver to the Fiscal Agent a certificate of the Company stating that the Company is entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to the right of redemption have occurred, together with an opinion of counsel to the effect that such a change in, or amendment to the laws or treaties of the Republic (or of any political subdivision or taxing authority thereof or therein) or any regulations or rulings promulgated thereunder or any change in position regarding the application, administration or interpretation of such laws, treaties, regulations or rulings, has occurred.

5. **Purchase of Notes; Further Issues**

The Company may at any time purchase Notes by tender (available to all Holders alike) or in the open market at any price. Notes purchased or otherwise acquired by the Company may be held, resold or, at its discretion, surrendered to the Fiscal Agent for cancellation. If the Company shall acquire any Notes, such acquisition shall not operate as or be deemed for any purpose to be a satisfaction of the indebtedness represented by such Notes unless and until such Notes are delivered to the Fiscal Agent for cancellation and are cancelled and retired by the Fiscal Agent in accordance with the Conditions.

The Company may from time to time, without the consent of the existing Holders, create and issue additional notes under the Fiscal Agency Agreement having the same terms and conditions in all respects except for issue date and issue price. Additional notes issued will be consolidated with and form a single series with the outstanding Notes, provided that such additional notes must be issued with no more than *de minimis* original issue discount for United States federal income tax purposes or pursuant to a qualified reopening of the original series or as part of the same "issue" of debt instruments as the original series for United States federal income tax purposes.

6. **Additional Amounts**

All payments of principal of, and interest on, the Notes shall be made by the Company without withholding or deduction for, or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature imposed or levied by or on behalf of the Republic or by or within any political subdivision thereof or any authority therein having power to tax ("Korean Tax"), unless deduction or withholding of such Korean Tax is required by law. In the event that the deduction or withholding of Korean Tax is required by law, the Company will pay such additional amounts ("Additional Amounts") as will result in the payment to the Holders of the Notes of the amounts which would otherwise have been receivable in respect of principal and interest in the absence of such deduction or withholding, except that no such Additional Amount shall be payable in respect of any Note:

(a) to or on behalf of a Holder or beneficial owner who is subject to such Korean Tax in respect of such Note by reason of such Holder or beneficial owner being or having been connected with the Republic (or any political subdivision thereof) otherwise than merely by holding such Note or receiving principal or interest in respect thereof; or

(b) to or on behalf of a Holder or beneficial owner who would not be liable for or subject to such deduction or withholding by making a declaration of non-residence or other similar claim for exemption to the relevant tax authority if, after having been requested in writing by the Company to make such a declaration or claim, such Holder or beneficial owner fails to do so within 30 days; or

(c) to or on behalf of a Holder or beneficial owner who presents a Note (where presentation is required) more than 30 days after the relevant date except to the extent that the Holder or beneficial owner thereof would have been entitled to such Additional Amounts on presenting a Note for payment on the last day of such 30-day period; for this purpose the "relevant date" in relation to any payments of interest on, or principal of, any Note means: (i) the due date for payment thereof; or (ii) if the full amount of the monies payable on such date has not been received by the Fiscal Agent on or prior to such due date, the date on which, the full amount of such monies having been so received, notice to that effect is duly given to Holders of the Notes in accordance with the Fiscal Agency Agreement; or

(d) to or on behalf of a Holder or beneficial owner who would have been able to avoid the withholding or deduction by the presentation (where presentation is required) of the relevant Note to, or otherwise accepting payment from, another paying agent; or

(e) any combination of (a), (b), (c) or (d) above.

The obligation of the Company to pay such Additional Amounts in respect of taxes, duties, assessments and governmental charges shall not apply to (a) any estate, inheritance, gift, sales, transfer, personal property or any similar tax, assessment or other governmental charge or (b) any tax, assessment or other governmental charge which is payable otherwise than by deduction or withholding from payments of principal of or interest on the Notes; provided that, except as otherwise set forth in the Notes and in the Fiscal Agency Agreement, the Company shall pay all stamp and other taxes and duties, if any, which may be imposed by the Republic or any respective political subdivision thereof or any taxing authority of or in the foregoing with respect to the Fiscal Agency Agreement or as a consequence of the initial issuance of the Notes.

Furthermore, no Additional Amounts shall be payable with respect to any payment of the principal of, or any interest on, any Note to any Holder who is a fiduciary or partnership or other than the sole beneficial owner of such payment to the extent such payment would be required by the laws of the Republic (or any political subdivision or taxing authority thereof or therein) to be included in the income for tax purposes of a beneficiary or settlor with respect to such fiduciary or a member of such partnership or a beneficial owner who would not have been entitled to such Additional Amounts had it been the Holder of such Note.

References to principal or interest in respect of the Notes shall be deemed also to refer to any Additional Amounts which may be payable as set forth in the Notes.

7. **Transfer, Exchange and Replacement**

(a) The transfer of this Note is registrable (upon the terms and subject to the conditions set forth in the Fiscal Agency Agreement and subject to the requirements of the Company and the Fiscal Agent) on the Note Register upon surrender of this Note for registration at the Corporate Trust Office of the Fiscal Agent, duly endorsed by, or accompanied by a written instrument of transfer in a form approved by the Company and notified to the Fiscal Agent duly executed by, the Holder hereof or his attorney duly authorized in writing.

(b) In the manner and subject to the limitations and upon payment of the charges (if any) provided in the Fiscal Agency Agreement, Notes may be exchanged for a like aggregate principal amount of Notes of other authorized denominations or for a beneficial interest in a Global Note.

(c) No service charge shall be made for any exchange or registration of transfer provided for in Conditions 7(a) and 7(b) hereof, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

(d) No registrations of transfers or exchanges of Notes shall be made after notice of redemption of the Notes has been given.

(e) All Notes issued upon any registration of transfer or exchange of Notes shall be the valid obligations of the Company, evidencing the same debt, and entitled to the same benefits, as the Notes surrendered upon such registration of transfer or exchange. Any new Note delivered pursuant to this Condition 7 shall be so dated that neither gain nor loss of interest shall result from such transfer or exchange.

(f) If any Note shall at any time become mutilated or destroyed or stolen or lost, then, provided that such Note, or evidence of the destruction, theft or loss thereof (together with the indemnity hereinafter referred to and such other documents or proof as may be required in the premises) shall be delivered during business hours to the Corporate Trust Office of the Fiscal Agent, a replacement Note of like tenor and principal amount will be issued by the Company and, at its request, authenticated by the Fiscal Agent and delivered by the Fiscal Agent at its Corporate Trust Office, in exchange for the Note so mutilated, or in lieu of the Note so destroyed or stolen or lost; provided, further, that, in the case of destroyed, stolen or lost Notes, (i) neither the Company nor the Fiscal Agent shall have notice that such Notes have been acquired by a bona fide purchaser, and (ii) the Company and the Fiscal Agent shall have received evidence satisfactory to them that such Notes were destroyed, stolen or lost, and the Company and the Fiscal Agent shall have received an indemnity satisfactory to each of them. All expenses and charges associated with procuring such indemnity, and the cost of the preparation and issue of a replacement for any Note mutilated, destroyed,

stolen or lost, shall be paid by the Holder of such Note. In case such mutilated, destroyed, stolen or lost Note has become or is about to become due and payable, the Company in its discretion may, instead of issuing a new Note, pay or cause to be paid such Note. Every new Note issued pursuant to this paragraph (f) in exchange for or in lieu of any mutilated, destroyed, stolen or lost Note, shall constitute an additional original contractual obligation of the Company, whether or not the mutilated, destroyed, stolen or lost Note shall be at any time enforceable by anyone. Any new Note delivered pursuant to this paragraph (f) shall be so dated that neither gain nor loss of interest shall result from such replacement. To the extent permitted by law, the provisions of this paragraph (f) are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, stolen or lost Notes.

(g) The Company and the Fiscal Agent may deem and treat the registered Holder hereof as the absolute owner hereof (notwithstanding any notice of ownership or other writing hereon) for the purposes of receiving payment hereon or on account hereof and for all other purposes, whether or not this Note shall be overdue.

(h) The Company has appointed the Corporate Trust Office of the Fiscal Agent as its agent for transfers, and for exchanges and replacements, of Notes and has agreed to cause to be kept at the Corporate Trust Office of the Fiscal Agent a register (the "Note Register") in which, subject to such regulations as it may prescribe, the Company shall provide for such registration and registration of transfers.

(i) All Notes issued as a result of any transfer, exchange or replacement of Notes shall be delivered to the Holder at the Corporate Trust Office of the Fiscal Agent or (at the risk of the Holder) sent by mail to such address as is specified by the Holder in the request for transfer, exchange or replacement.

8. **Covenants of the Company**

(a) *Limitation on Liens.* So long as any of the Notes are outstanding, the Company will not itself, and will not permit any Restricted Subsidiary to create, incur, issue or assume or guarantee any External Indebtedness secured by any Security Interest on any Principal Property owned by the Company or any Restricted Subsidiary or on any shares of stock or External Indebtedness of any Restricted Subsidiary (such shares of stock or External Indebtedness of any Restricted Subsidiary being called "Restricted Securities") without in any such case effectively providing that the Notes (together with, if the Company shall so determine, any other indebtedness of the Company or any Restricted Subsidiary then existing or thereafter created which is not subordinate to the Notes) shall be secured equally and ratably with or prior to such secured External Indebtedness unless, after giving effect thereto, the aggregate principal amount of all such secured External Indebtedness, plus Attributable Debt of the Company and its Restricted Subsidiaries in respect of sale and leaseback transactions (as described in Condition 8(b) below) involving Principal Properties would not exceed 10% of Consolidated Net Tangible Assets; provided that nothing contained in this Condition 8(a) shall prevent, restrict or apply to, and there shall be excluded from secured External Indebtedness in any computation under this Condition 8(a), External Indebtedness secured by:

(1) Security Interests existing as of the date of the Fiscal Agency Agreement;

(2) Security Interests on any property, shares of stock or indebtedness of any corporation existing at the time such corporation becomes a Restricted Subsidiary or arising thereafter pursuant to contractual commitments entered into prior to and not in contemplation of such corporation becoming a Restricted Subsidiary;

(3) Security Interests on any property, shares of stock or indebtedness existing at the time of acquisition thereof (including acquisition through merger or consolidation) or arising thereafter pursuant to contractual commitments entered into prior to and not in contemplation of the acquisition of such property, shares of stock or indebtedness;

(4) Security Interests on any Principal Property or Restricted Securities securing the payment of all or any part of the purchase price or cost of construction or improvement of any Principal Property or securing any indebtedness incurred prior to, at the time of or within 12 months after the acquisition of such Principal Property or the completion of any such construction or improvement, whichever is later, for the purpose of financing all or any part of the purchase price or cost of construction or improvement thereof (provided that such Security Interests are limited to such Principal Property or Restricted Securities, improvements on such Principal Property and any other property or assets not constituting a Principal Property or Restricted Securities prior to such construction or improvement);

(5) Security Interests which secure indebtedness owing to the Company or to a Restricted Subsidiary;

(6) Security Interests securing External Indebtedness incurred with respect to the improvement of Principal Property after the date of the Fiscal Agency Agreement in connection with environmental law obligations; provided that such External Indebtedness does not exceed 3% of Consolidated Net Tangible Assets; and

(7) any extension, renewal, alteration or replacement (or successive, extensions, renewals, alterations or replacements) in whole or in part, of any Security Interest referred to in the foregoing paragraphs (1) through (6) inclusive or any refinancing of External Indebtedness, or a portion thereof, secured by a Security Interest referred to in the foregoing paragraphs (1) through (6) inclusive, which External Indebtedness, or portion thereof, was paid, extinguished or satisfied not more than 90 days prior to the date of such refinancing; provided that the principal amount of External Indebtedness secured thereby shall not exceed the principal amount of External Indebtedness so secured at the time of such extension, renewal, alteration or replacement or the principal amount of External Indebtedness being refinanced, and that such extension, renewal, alteration, replacement or refinancing shall be limited to all or a part of the property (plus improvements on such property) which secured the Security Interest so extended, renewed, altered or replaced or relating to the External Indebtedness so refinanced.

For the purposes of this Condition 8(a) and Condition 8(b), the giving of a guarantee which is secured by a Security Interest on a Principal Property or Restricted Securities, and the creation of a Security Interest on a Principal Property or Restricted Securities to secure External Indebtedness which existed prior to the creation of such Security Interest, shall be deemed to involve the creation of indebtedness in an amount equal to the principal amount guaranteed or secured by such Security Interest; but the amount of indebtedness secured by Security Interests on Principal Properties and Restricted Securities shall be computed without cumulating the underlying indebtedness with any guarantee thereof or Security Interest securing the same.

(b) *Limitation on Sale and Leaseback Transactions.* So long as any of the Notes are outstanding, the Company will not itself, and will not permit any Restricted Subsidiary to, enter into any arrangement after the date of the Fiscal Agency Agreement with any Person (other than the Company or another Restricted Subsidiary) providing for the leasing by the Company or any Restricted Subsidiary of any Principal Property (except a lease for a temporary period not to exceed three years by the end of which it is intended that the use of such Principal Property by the lessee will be discontinued), which was or is owned by the Company or a Restricted Subsidiary and which has been or is to be sold or transferred to such Person or to any other Person to whom funds are advanced by such Person or to any other Person to whom funds have been or are to be advanced by such Person on the security of such Principal Property (herein referred to as a "sale and leaseback transaction") unless either:

(1) the Attributable Debt of the Company and its Restricted Subsidiaries in respect of such sale and leaseback transaction and all other sale and leaseback transactions entered into after the date of the Fiscal Agency Agreement (other than such sale and leaseback transactions as are permitted by paragraph (2) below), plus the aggregate principal amount of External Indebtedness secured by Security Interests on Principal Properties and Restricted Securities then outstanding (excluding any such External Indebtedness secured by Security Interests described in paragraphs (1) through (7) of Condition 8(a)) without equally and ratably securing the Notes, would not exceed 10% of Consolidated Net Tangible Assets; or

(2) the Company, within 12 months after the sale or transfer, applies or causes a Restricted Subsidiary to apply an amount equal to the greater of (i) the net proceeds of such sale or transfer or (ii) the fair market value of the Principal Property so sold and leased back at the time of entering into such sale and leaseback transaction (in each case as determined in good faith by two directors or other executive officers who are authorized to represent the Company) to the retirement of External Indebtedness of the Company or a Restricted Subsidiary which is not subordinate to the Notes; provided that the amount to be so applied shall be reduced by (i) the principal amount of Notes delivered within 12 months after such sale or transfer to the Fiscal Agent for retirement and cancellation, and (ii) the principal amount of External Indebtedness of the Company or a Restricted Subsidiary, other than Notes, voluntarily retired by the Company or a Restricted Subsidiary within 12 months after such sale or transfer. Notwithstanding the foregoing, no retirement referred to in this paragraph (2) may be effected by payment at maturity or pursuant to any mandatory sinking fund payment or any mandatory prepayment provision.

Notwithstanding the foregoing, where the Company or any Subsidiary is the lessee in any sale and leaseback transaction, Attributable Debt shall not include any External Indebtedness resulting from the guarantee by the Company or any other Subsidiary of the lessee's obligation thereunder.

(c) *Certain Definitions.* The following terms (except as otherwise expressly provided or unless the context otherwise clearly requires) for all purposes of the Fiscal Agency Agreement and the Notes shall have the respective meanings specified in this Condition. All accounting terms used herein and not expressly defined shall have the meanings given to them in accordance with K-IFRS, and the term "K-IFRS" shall mean the International Financial Reporting Standards as adopted by the Republic at the date or time of any computation.

"Attributable Debt" means, as to any lease, at the date of determination, the total net amount of rent required to be paid under such lease during the remaining term thereof including renewal terms at the option of the lessor (excluding amounts on account of maintenance and repairs, insurance, taxes, assessments, water rates and similar charges and contingent rents), discounted from their respective due dates at the rate of interest borne by the Notes compounded annually.

"Consolidated Net Tangible Assets" means the total amount of assets of the Company and its consolidated Subsidiaries, including investments in unconsolidated Subsidiaries, after deducting therefrom (i) all current liabilities (excluding any current liabilities constituting Long-term Debt by reason of their being renewable or extendible at the option of the Company) and (ii) all goodwill, industrial rights, usable and profitable donation assets and software and other like intangible assets, all as set forth on the most recent statement of financial position of the Company and its consolidated Subsidiaries and computed in accordance with K-IFRS.

"External Indebtedness" means any obligation for the payment or repayment of money borrowed which is denominated in a currency other than the currency of the Republic and which has a final maturity of one year or more from its date of incurrence or issuance.

"Long-term Debt" means any note, bond, debenture or other indebtedness for money borrowed having a maturity of more than one year from the date such indebtedness was incurred or having a maturity of less than one year but by its terms being renewable or extendible, at the option of the borrower, beyond one year from the date such evidence of indebtedness was incurred.

"Person" means any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof.

"Principal Property" means any generation facility located in the Republic, whether currently owned or hereafter acquired, including any land, buildings, structures or machinery and other fixtures that constitute any such facility, or portion thereof, other than any such facility, or portion thereof, reasonably determined by the Board of Directors of the Company not to be of material importance to the total business conducted by the Company and its Subsidiaries as a whole.

"Restricted Subsidiary" means any Subsidiary that owns a Principal Property.

"Security Interest" means any mortgage, pledge, lien, fixed or floating charge or other encumbrance.

"Subsidiary" means any corporation or other entity of which securities or other ownership interests having ordinary voting power to elect a majority of the board of directors or other Persons performing similar functions are at the time directly or indirectly owned by the Company.

(d) *Provision of Information to Holders.* The Company covenants that for so long as this Note is a "restricted security" within the meaning of Rule 144 under the U.S. Securities Act of 1933, as amended (the "Securities Act"), the Company shall, at any time when it is not subject to either the periodic reporting requirements of Section 13 or Section 15(d) of the

U.S. Securities Exchange Act of 1934, as amended, or the requirements of Rule 12g3-2(b) thereunder, provide to any Holder of this Note or prospective purchaser of this Note designated by such Holder, upon the request of such Holder or prospective purchaser, the information required to be provided by Rule 144A(d)(4) under the Securities Act.

9. **Merger and Consolidation**

Nothing contained in the Fiscal Agency Agreement or in the Notes shall prevent any consolidation of the Company with, or merger of the Company into, any other corporation or corporations (whether or not affiliated with the Company), or successive consolidations or mergers to which the Company or its successor or successors shall be a party or parties, or shall prevent any sale, transfer, lease or conveyance of the property of the Company as an entirety or substantially as an entirety; provided that (a) in case the Company shall consolidate with or merge into another corporation, or sell, transfer, lease or convey its property as an entirety or substantially as an entirety to any corporation, the corporation formed by such consolidation or into which the Company is merged or the corporation which acquires by sale, transfer, lease or conveyance the property of the Company as an entirety or substantially as an entirety shall be a corporation organized under the laws of the Republic and shall expressly assume, by an agreement supplemental to the Fiscal Agency Agreement executed and delivered to, and in form reasonably satisfactory to, the Fiscal Agent, the due and punctual payment of the principal of and interest (including all Additional Amounts, if any, payable pursuant to Condition 6) on the Notes, and the due and punctual performance and observance of all of the covenants and conditions to the Fiscal Agency Agreement and the Notes on the part of the Company to be performed or observed; (b) immediately after giving effect to such transaction and treating any indebtedness which becomes an obligation of the Company as a result of such transaction as having been incurred by the Company at the time of such transaction, no Event of Default (as defined below), and no event which, after notice or lapse of time or both, would become an Event of Default, shall have occurred and be continuing; (c) if, as a result of any such consolidation or merger or such sale, transfer, lease or conveyance, properties or assets of the Company or a Restricted Subsidiary would become subject to a Security Interest which would not be permitted by the Notes, the Company or such successor corporation, as the case may be, shall take such steps as shall be necessary effectively to secure the Notes (together with, if the Company shall so determine, any other indebtedness of the Company or such Restricted Subsidiary then existing or thereafter created which is not subordinate to the Notes) equally and ratably with (or prior to) all indebtedness secured thereby; and (d) the Company has delivered to the Fiscal Agent a certificate signed by an authorized officer of the Company and an opinion of counsel as to matters of law stating that such consolidation, merger, sale, transfer, lease or conveyance and, if a supplemental agreement is required in connection with such transaction, such supplemental agreement comply with the Fiscal Agency Agreement and the Notes and that all conditions precedent herein provided for relating to such transaction have been complied with.

10. **Prescription**

Claims against the Company in respect of the payment of principal and interest on the Notes shall be prescribed unless made within 10 years (in the case of principal) and five years (in the case of interest) from the relevant date (as defined in Condition 6).

11. **Events of Default**

The term "Event of Default" means any of the following events (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body) which shall have occurred and be continuing:

(a) default in the payment of any installment of interest upon any of the Notes when it becomes due and continuance of such default for a period of 30 days; or

(b) default in the payment of all or any part of the principal of (or premium, if any, on) any of the Notes as and when the same shall become due and payable, whether at maturity, upon redemption or otherwise and continuance of such default for a period of seven days; or

(c) failure on the part of the Company duly to observe or perform any other of the covenants or agreements on the part of the Company contained in the Notes or the Fiscal Agency Agreement for a period of 60 days after the date on which written notice specifying such failure, stating that such notice is a "Notice of Default" hereunder and demanding that the Company remedy the same, shall have been given by registered or certified mail, return receipt requested, to the Company by the Holders of at least 10% in aggregate principal amount of the Notes at the time outstanding; or

(d) any External Indebtedness of the Company in the aggregate outstanding principal amount of US$15,000,000 or more either (i) becoming due and payable by reason of acceleration thereof following default by the Company or (ii) not being repaid at, and remaining unpaid after, maturity as extended by the period of grace, if any, applicable thereto, or any guarantee given by the Company in respect of External Indebtedness of any other Person not being honored when, and remaining dishonored after becoming, due and called; provided that, in the case of (i) above, if any such default under any such External Indebtedness shall be cured or waived, then the default hereunder by reason thereof shall be deemed to have been cured and waived; or

(e) a court or administrative or other governmental agency or body having jurisdiction in the premises shall enter a decree or order for relief in respect of the Company in an involuntary case under any applicable bankruptcy, insolvency, reorganization, compulsory composition or other similar law now or hereafter in effect, or appointing a receiver, liquidator, assignee, custodian, trustee, sequestrator (or similar official) of the Company or for any substantial part of its property or ordering the winding up, dissolution or liquidation of its affairs, or shall otherwise adjudicate or find the Company to be bankrupt or insolvent and such decree or order shall remain unstayed and in effect for a period of 60 consecutive days; or

(f) the Company shall commence a voluntary case under any applicable bankruptcy, insolvency, reorganization, compulsory composition or other similar law now or hereafter in effect, or consent to the entry of an order for relief in an involuntary case under any such law, or consent to the appointment or taking possession by a receiver, liquidator, assignee, custodian, trustee, sequestrator or similar official of the Company or for any substantial part of its property, or cease to carry on the whole or substantially the whole of its business or make any general assignment for the benefit of creditors, or enter into any composition with its creditors, or take corporate action in furtherance of any such action;

then, and in each and every such case, unless the principal of all of the Notes shall have already become due and payable, the Holders of not less than 25% in aggregate principal amount of the Notes then outstanding, by notice in writing to the Company and to the Fiscal Agent, may declare the aggregate principal amount of the Notes to be due and payable immediately, and upon any such declaration the same shall become immediately due and payable, unless prior to receipt of such notice by the Company, all such defaults shall have been cured.

The Holders of more than 50% in aggregate principal amount of the Notes at the time outstanding, by notice to the Fiscal Agent (and without notice to any other Holders) may rescind and annul an acceleration pursuant to this Condition 11 and its consequences if (i) the rescission or annulment would not conflict with any judgment or decree for the payment of monies due that has been obtained or entered as hereinafter provided, (ii) all existing Events of Default have been cured or waived except nonpayment of the sum of the unpaid principal amount of the Notes plus interest (if any) payable thereon to the date of payment that have become due solely as a result of such acceleration and (iii) all amounts due to the Fiscal Agent under the Fiscal Agency Agreement have been paid. No such rescission shall affect any subsequent Event of Default or impair any right consequent thereto.

The Fiscal Agent shall not be deemed to know or have notice of an Event of Default unless the Corporate Trust Office receives written notice of such Event of Default.

12. **Meetings of Holders; Modifications and Amendments**

(a) The Company shall at any time after the Notes shall have become immediately due and payable due to a default upon a request in writing made by Holders holding not less than 10% of the aggregate outstanding principal amount of the Notes, convene a meeting of Holders of the Notes. Any such request in writing by the Holders shall be delivered to the Fiscal Agent. Further provisions concerning meetings of the Holders are set forth in the Fiscal Agency Agreement.

(b) Modifications and amendments to the Fiscal Agency Agreement or the Notes requiring consent of Holders may be made, and future compliance therewith or past defaults by the Company may be waived, with the consent of the Company and the Holders of more than 50% in aggregate principal amount of the Notes at the time outstanding, or of such lesser percentage as may act at a meeting of the Holders held in accordance with the provisions of the Fiscal Agency Agreement; provided that no such modification, amendment or waiver of the Fiscal Agency Agreement or any Note may, without the consent of each Holder affected thereby, (i) change the maturity of the principal of, or any date for the payment of interest or Additional Amounts payable on, any Note; (ii) reduce the principal amount of, or any interest or Additional Amounts payable on, any Note; (iii) change the manner of calculation of interest or principal with respect to any Note; (iv) change the place of payment, or currency of denomination or payment, of the principal of or any interest or Additional Amounts payable on any Note; (v) change the Company's obligation to pay Additional Amounts; (vi) impair the right to institute suit for the enforcement of any payment on or with respect to any Note; or (vii) reduce the percentage of the principal amount of the outstanding Notes, the consent of the Holders of which is required for any such supplemental agreement. Any modifications, amendments or waivers consented to or approved at a meeting will be conclusive and binding on all Holders whether or not they have given such consent or were present at such meeting, and on all future Holders whether

or not notation of such modifications, amendments or waivers is made upon the Notes. Any instrument given by or on behalf of any Holder of a Note in connection with any consent to any such modification, amendment or waiver will be irrevocable once given and will be conclusive and binding on all subsequent Holders of such Note.

(c) At a meeting of the Holders of the Notes called for any of the above purposes, persons entitled to vote more than 50% in aggregate principal amount of the Notes at the time outstanding shall constitute a quorum. In the absence of a quorum at any such meeting, the meeting may be adjourned for a period of not less than ten days; in the absence of a quorum at any such adjourned meeting, such adjourned meeting may be further adjourned for a period of not less than ten days; at the reconvening of any meeting further adjourned for lack of a quorum, the persons entitled to vote 25% in aggregate principal amount of the Notes at the time outstanding shall constitute a quorum for the taking of any action set forth in the notice of the original meeting. At a meeting or an adjourned meeting duly convened and at which a quorum is present as aforesaid, any resolution to modify or amend, or to waive compliance with, any of the covenants or conditions referred to above (other than those set forth in Clauses (i) through (vii) of Condition 12(b) hereof) shall be effectively passed if passed by the lesser of (i) more than 50% in aggregate principal amount of Notes then outstanding or (ii) 75% in aggregate principal amount of the Notes represented and voting at the meeting.

(d) The Fiscal Agency Agreement and the terms and conditions of the Notes may be modified, supplemented or amended, without the consent of the Holders, for one or more of the following purposes: (i) to convey, transfer, assign, mortgage or pledge to the Fiscal Agent, acting as security agent following an appointment by the Company and acceptance by the Fiscal Agent of such appointment, as security for the Notes any property or assets; (ii) to evidence the succession of another corporation to the Company, or successive successions, and the assumption by the successor corporation of the covenants, agreements and obligations of the Company pursuant to Condition 9; (iii) to add to the covenants of the Company such further covenants, restrictions, conditions or provisions as the Company shall consider, in its sole discretion, to be for the protection of the Holders of Notes, and to make the occurrence, or the occurrence and continuance, of a default in any such additional covenants, restrictions, conditions or provisions an Event of Default permitting the enforcement of all or any of the several remedies provided in this Note as herein set forth; provided, that in respect of any such additional covenant, restriction, condition or provision such supplemental agreement may provide for a particular period of grace after default (which period may be shorter or longer than that allowed in the case of other defaults) or may provide for an immediate enforcement upon such an Event of Default or may limit the remedies available to the Fiscal Agent or the Holders upon such an Event of Default or may limit the right of the Holders of more than 50% in aggregate principal amount of the Notes to waive such an Event of Default; and (iv) to cure any ambiguity or to correct or supplement any provision contained herein or in any supplemental agreement which may be defective or inconsistent with any other provision contained herein or in any supplemental agreement; or to make such other provisions in regard to matters or questions arising under this Note or the Fiscal Agency Agreement or under any supplemental agreement as the Company may, in its sole discretion, deem necessary or desirable and which shall not adversely affect the interests of the Holders. Any determination pursuant to subsection (iii) and/or (iv) above shall be made by the Company and none of the Agents shall have any responsibility or liability whatsoever with respect to such determinations. In all other cases, amendment of the Fiscal Agency Agreement will require consent of the

Holders pursuant to a resolution of the Holders of the Notes adopted pursuant to Section 14 of the Fiscal Agency Agreement and the Notes. Any modification shall be binding on the Holders and, unless the Fiscal Agent agrees otherwise, any modification shall be notified by the Company to the Holders in accordance with Condition 13.

13. **Notices to Holders**

Except as otherwise expressly provided herein or the Fiscal Agency Agreement, whenever the Fiscal Agency Agreement or this Note provides for notice to Holders, such notice shall be sufficiently given if in writing and mailed at the expense of the Company, first-class postage prepaid, to each Holder entitled thereto, at his last address as it appears in the Note Register. In any case where notice to Holders is given by mail, neither the failure to mail such notice, nor any defect in any notice so mailed, to any particular Holder shall affect the sufficiency of such notice with respect to other Holders and any notice that is mailed in the manner herein provided shall be conclusively presumed to have been duly given. Where the Fiscal Agency Agreement or this Note provides for notice in any manner, such notice may be waived in writing by the Person entitled to receive such notice, either before or after the event, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders shall be filed with the Fiscal Agent, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

In case, by reason of the suspension of or irregularities in regular mail service, it shall be impracticable to mail notice to the Holders when such notice is required to be given pursuant to any provision of the Fiscal Agency Agreement or this Note, then any manner of giving such notice as shall be satisfactory to the Company shall be deemed to be a sufficient giving of such notice.

14. **Governing Law and Submission to Jurisdiction**

(a) This Note shall be governed by, and construed in accordance with, the laws of the State of New York. To the fullest extent permitted by applicable law, the Company irrevocably submits to the jurisdiction of any federal or state court in the Borough of Manhattan, City of New York, State of New York, United States of America, in any suit or proceeding based on or arising under the Fiscal Agency Agreement or the Notes, and irrevocably agrees that all claims in respect of such suit or proceeding may be determined in any such court. The Company irrevocably and fully waives any objection which it may now or hereafter have to the laying of the venue of any such suit or proceeding and any claim that any such proceeding brought in such a court has been brought in an inconvenient forum.

(b) The Company hereby irrevocably designates and appoints Capitol Services, Inc. (the "Process Agent"), located at 1218 Central Avenue, Suite 100, Albany, New York, NY 12205, United States, as the authorized agent of the Company upon whom process may be served in any such suit or proceeding, it being understood that the designation and appointment of the Process Agent as such authorized agent shall become effective immediately without any further action on the part of the Company. Service of process upon the Process Agent and written notice of said service to the Company mailed by first class mail or delivered to the Process Agent, shall be deemed in every respect effective services of process upon the Company in any such suit or proceeding. Nothing herein shall affect your right or any person controlling you to serve process in any other manner permitted by law.

(c) To the extent that the Company has or hereafter may acquire any immunity (sovereign or otherwise) from any legal action, suit or proceeding, from jurisdiction of any court or from set-off or any legal process (whether service or notice, attachment in aid or otherwise) against the Company or any of its assets which may arise in connection with the Fiscal Agency Agreement or the Notes, to the fullest extent it is able to do so under applicable law, the Company (a) hereby irrevocably waives and agrees not to plead or claim such immunity with respect to the Fiscal Agency Agreement and the Notes and (b) irrevocably and unconditionally consents to the giving of any relief or the issue of any process, including, without limitation, the making, enforcement or execution against any property whatsoever (irrespective of its use or intended use) of any order or judgment made or given in connection with any suit, action or proceeding in connection with the Fiscal Agency Agreement or the Notes.

## FORM OF THE NOTES

*Capitalized terms used in this section and not otherwise defined shall have the meanings given to them in "Terms and Conditions".*

Upon issuance, the Notes are expected to be represented by Global Notes in fully registered form. The Global Notes will be deposited with or on behalf of DTC and registered in the name of a nominee of DTC. A Global Note may not be transferred except as a whole by DTC to a nominee of DTC or by a nominee of DTC to DTC or another nominee of DTC or by DTC or any such nominee to a successor of or a nominee of such successor.

Upon the issuance of the Global Notes, DTC will credit, on its book-entry registration and transfer system, the respective principal amounts of the Notes represented by such Global Notes to the accounts of persons that have accounts with DTC ("participants"), including depositaries for Euroclear and Clearstream. The accounts to be initially credited shall be designated by the Initial Purchasers participating in the initial offer and sale of the Notes. Ownership of beneficial interests in the Global Notes will be limited to participants or persons that may hold interests through participants. Ownership of beneficial interests in such Global Notes will be shown on, and the transfer of that ownership will be effected only through, records maintained by DTC for such Global Notes (with respect to interests of participants) or by participants or persons that hold through participants (with respect to interests of persons other than participants).

DTC or its nominee, as the case may be, as registered Holder of the Global Notes will be considered the sole owner or holder of the Notes represented by each Global Note for all purposes under the Notes and the Fiscal Agency Agreement.

Principal and interest payments on Notes represented by the Global Notes registered in the name of DTC or its nominee will be made to DTC or its nominee, as the case may be, as the registered owner of such Global Notes. None of us, the Fiscal Agent or any paying agent for such Notes will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in such Global Notes or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

We expect that DTC, upon receipt of any payment of principal or interest, will credit participants' accounts with payments in amounts proportionate to their respective beneficial interests in the principal amount of such Global Notes as shown on the records of DTC. We also expect that payments by participants to owners of beneficial interests in such Global Notes held through such participants will be governed by standing instructions and customary practices, as is now the case with securities held for the account of customers registered in "street names," and will be the responsibility of such participants.

If (i) at any time DTC notifies us in writing that it is unwilling or unable to continue as depositary or ceases to be a "clearing agency" under the Exchange Act, and a successor depositary is not appointed by us within 90 days after we are notified by DTC or becomes aware of such condition, or (ii) the Notes have become immediately due and payable pursuant to Condition 10, we will issue Notes in definitive registered form in exchange for the Global Notes representing such Notes. The Notes will be issued only in fully registered form without coupons in denominations of US$200,000 and integral multiples of US$1,000 in excess thereof. If the Notes are issued in definitive registered form, we will make payments of principal of, and any premium (if any) and interest on the Notes, and transfers and exchanges of the Notes will be affected, subject to the terms of the Fiscal Agency Agreement and the Notes (without any service charge) upon surrender of the Notes.

For so long as the Notes are listed on the Singapore Stock Exchange and the rules of the Singapore Stock Exchange so require, in the event that the Global Notes are exchanged for definitive Notes, we will appoint and maintain a paying agent in Singapore, where definitive Notes may (if required) be presented or surrendered for payment or redemption. In addition, in the event that the Global Notes are exchanged for definitive Notes, an announcement of such exchange will be made by us or on our behalf through the Singapore Stock Exchange. Such announcement will include all material information with respect to the delivery of definitive Notes, including details of the paying agent in Singapore.

## UNITED STATES TAXATION

The following is a summary of certain U.S. federal income tax consequences of the purchase, ownership and disposition of Notes as of the date hereof. This summary deals only with Notes that are held as capital assets by a U.S. holder (as defined below) that acquired the Notes upon original issuance at their initial offering price.

For purposes of this summary, a "U.S. holder" means a beneficial owner of a Note that is, for U.S. federal income tax purposes, an individual who is a citizen or resident of the United States, a domestic corporation or otherwise subject to U.S. federal income tax on a net income basis in respect of its investment in the Notes. A "non-U.S. holder" means a beneficial owner of Notes that is not a U.S. holder.

This summary is based upon provisions of the Internal Revenue Code of 1986, as amended (the "Code"), and regulations, rulings and judicial decisions as of the date hereof. Those authorities may be changed, perhaps retroactively, so as to result in U.S. federal income tax consequences different from those summarized below. This discussion does not consider the effect of any applicable state, local or foreign tax laws, or any aspect of U.S. federal taxation other than income taxation (such as estate and gift tax laws, the alternative minimum tax or Medicare tax on net investment income). In addition, it does not represent a detailed description of the U.S. federal income tax consequences applicable to investors subject to special treatment under the U.S. federal income tax laws, such as financial institutions; dealers in securities or currencies; traders in securities that elect to use the mark-to-market method of accounting for their securities; regulated investment companies; real estate investment trusts, partnerships or other pass-through entities and the partners therein, tax-exempt entities; insurance companies; persons holding the Notes as part of a hedging, integrated, constructive sale or conversion transaction or a straddle; and investors whose "functional currency" is not the U.S. dollar.

**If you are considering the purchase of Notes, you should consult your own tax advisers concerning the particular U.S. federal income tax consequences to you of the purchase, ownership and disposition of the Notes, as well as the consequences to you arising under the laws of any other taxing jurisdiction.**

### Payments of Interest

Payments of interest on the Notes generally will be taxable to you as ordinary interest income at the time that the payments accrue or are received, in accordance with your method of accounting for U.S. federal income tax purposes.

It is expected, and this discussion assumes, that the Notes will not be issued with original issue discount ("OID") for U.S. federal income tax purposes. In general, however, if the Notes are issued at a discount from their stated principal amount, and such discount is equal to or more than the product of one-fourth of one percent (0.25%) of the stated principal amount of the Notes and the number of full years to their maturity, the Notes will have OID equal to such discount and you will have to include OID as ordinary gross income under a "constant yield method" before the receipt of cash attributable to such income, regardless of your regular method of accounting for U.S. federal income tax purposes.

**Sale, Exchange or Other Disposition of the Notes**

You will generally recognize gain or loss on the sale, exchange, redemption or other taxable disposition of the Notes in an amount equal to the difference between the amount realized on the disposition (less any amounts attributable to accrued but unpaid interest, which will be taxable as such) and your adjusted tax basis in the Notes. Your adjusted tax basis in a Note generally will equal your purchase price in that Note. Gain or loss that you realize upon a sale, exchange, redemption or other disposition of the Notes generally will be capital gain or loss, and generally will be long-term capital gain or loss if, at the time of the disposition, you have held the Notes for more than one year. The deduction of capital losses is subject to limitations.

**Foreign Financial Asset Reporting**

Individual U.S. holders that own "specified foreign financial assets" with an aggregate value in excess of US$50,000 are generally required to file an information statement along with their tax returns, currently on Form 8938, with respect to such assets. "Specified foreign financial assets" include any financial accounts held at a non-U.S. financial institution, as well as securities issued by a non-U.S. issuer (which may include Notes issued in certificated form) that are not held in accounts maintained by financial institutions. Higher reporting thresholds apply to certain individuals living abroad and to certain married individuals. Regulations extend this reporting requirement to certain entities that are treated as formed or availed of to hold direct or indirect interests in specified foreign financial assets based on certain objective criteria. U.S. holders who fail to report the required information could be subject to substantial penalties. In addition, the statute of limitations for assessment of tax would be suspended, in whole or part. You should consult your own tax advisers concerning the application of these rules to your investment in the Notes, including the application of the rules to your particular circumstances.

**Information Reporting and Backup Withholding**

If you are a U.S. holder, payments in respect of the Notes that are paid within the United States or through certain U.S.-related financial intermediaries are generally subject to information reporting, unless you are a corporation (other than an S Corporation) or other exempt recipient. If you are a U.S. holder that is not an exempt recipient, payments that you receive may be subject to backup withholding, unless you provide an accurate taxpayer identification number and certify that you have not lost your exemption from backup withholding. If you are a non-U.S. holder, you are generally exempt from backup withholding, but you may have to comply with certification procedures to prove entitlement to this exemption. The amount of any backup withholding collected from a payment to a holder will be allowed as a credit against the holder's U.S. federal income tax liability and may entitle the holder to a refund, provided that certain required information is timely furnished to the IRS. You should consult your tax advisers about these rules and any other reporting obligations that may apply to your ownership or disposition of Notes.

## KOREAN TAXATION

### Republic of Korea

The information provided below does not purport to be a complete summary of Korean tax law and practice currently applicable. Prospective investors who are in any doubt as to their tax position should consult with their own professional advisers.

The taxation of non-resident individuals and non-Korean corporations ("Non-Residents") depends on whether they have a "permanent establishment" (as defined under Korean law and applicable tax treaty) in Korea to which the relevant Korean source income is attributable or with which such income is effectively connected. Non-Residents without a permanent establishment in Korea are taxed in the manner described below. Non-Residents with permanent establishments in Korea are taxed in accordance with different rules.

### Tax on Interest

Interest on the Notes paid to Non-Residents (excluding payments to their permanent establishment in Korea), being foreign currency denominated bonds, is exempt from income tax and corporation tax (whether payable by withholding or otherwise) pursuant to the Special Tax Treatment Control Law of Korea (the "STTCL"), so long as the Notes are "foreign currency denominated bonds" under the STTCL and the issuance of the Notes is deemed to be an overseas issuance under the STTCL. The term "foreign currency denominated bonds" in this context is not defined under the STTCL.

If the tax exemption under the STTCL referred to above were to cease to be in effect, the rate of income tax or corporation tax applicable to interest on the Notes, for a Non-Resident without a permanent establishment in Korea, would be 14% of income. In addition, a tax surcharge called a local income tax would be imposed at the rate of 10% of the income or corporation tax (raising the total tax rate to 15.4%).

The tax is withheld by the payer or us. Tax rates may be reduced or exempted by applicable tax treaties, conventions or agreements between Korea and the country of the recipient of the interest. The relevant tax treaties are summarized below.

### Tax on Capital Gains

Korean tax laws currently exclude from Korean taxation gains made by a Non-Resident without a permanent establishment in Korea from the sale of the Notes to Non-Residents (other than to their permanent establishments in Korea). In addition, capital gains earned by Non-Residents with or without permanent establishments in Korea from the transfer taking place outside Korea of the Notes are currently exempt from taxation by virtue of STTCL, provided that the issuance of the Notes is deemed to be an overseas issuance under the STTCL.

If the exclusion or exemption from Korean taxation referred to above were to cease to be in effect, in the absence of an applicable treaty reducing or eliminating tax on capital gains, the applicable rate of tax would be the lower of 11% of the gross realization proceeds and (subject to the production of satisfactory evidence of the acquisition cost and certain direct transaction costs of the relevant Note) 22% of the realized gain (i.e., the excess of the gross realization proceeds over the acquisition cost and certain direct transaction costs) made. If such evidence shows that no gain (or a loss) was made on the sale, no Korean tax is payable. There is no provision under relevant Korean law for offsetting gains and losses or otherwise aggregating transactions for the purpose of computing the net gain attributable to sales of Notes issued by Korean companies. The purchaser or any other

designated withholding agent of Notes is obliged under Korean law to withhold the applicable amount of Korean tax and make payment thereof to the relevant Korean tax authority. Unless the seller can claim the benefit of an exemption from tax under an applicable tax treaty or on the failure of the seller to produce satisfactory evidence of his acquisition cost and certain direct transaction costs in relation to the instruments being sold, the purchaser or such withholding agent must withhold an amount equal to 11% of the gross realization proceeds. Any amounts withheld by the purchaser or withholding agent must be paid to the competent Korean tax office. The purchaser or withholding agent must pay any withholding tax no later than the tenth day of the month following the month in which the payment for the purchase of the relevant instruments occurred. Failure to transmit the withheld tax to the Korean tax authorities in time subjects the purchaser or the withholding agent to penalties under Korean tax laws. The Korean tax authorities may attempt to collect such tax from a Non-Resident who is liable for payment of any Korean tax on gains, as a purchaser or withholding agent who is obliged to withhold such tax, through proceedings against payments due to the Non-Resident from its Korean investments and the assets or revenues of any of the Non-Resident's branch or representative offices in Korea.

**Inheritance Tax and Gift Tax**

Korean inheritance tax is imposed upon (a) all assets (wherever located) of the deceased if at the time of his death he was domiciled in Korea or had resided in Korea continuously for at least 183 days immediately prior to his death and (b) all property located in Korea which passes on death (irrespective of the domicile of the deceased). Gift tax is imposed in similar circumstances to the above. The taxes are imposed if the value of the relevant property is above a certain limit and the rate varies according to the identity of the persons involved. At present, Korea has not entered into any tax treaties regarding its inheritance or gift taxes.

Under Korean inheritance and gift tax laws, bonds issued by Korean corporations are deemed located in Korea irrespective of where they are physically located or by whom they are owned. And, consequently, the Korean inheritance and gift taxes will be imposed on transfers of the Notes by inheritance or gift. Holders should consult their personal tax advisers regarding the consequences of the imposition of the Korean inheritance or gift tax.

**Stamp Duty and Securities Transaction Tax**

No stamp, issue or registration duties will be payable in Korea by the Holders in connection with the issue of the Notes except for a nominal amount of stamp duty on certain documents executed in Korea which will be paid by us. No securities transaction tax will be imposed upon the transfer of the Notes.

**Tax Treaties**

At the date of this Offering Circular, Korea has tax treaties with, *inter alia*, Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Luxembourg, The Netherlands, New Zealand, Norway, Singapore, Sweden, Switzerland, the United Kingdom and the United States of America under which the rate of withholding tax on interest is reduced, generally to between 5 and 16.5% (including local income tax), and the tax on capital gains is often eliminated.

Each Holder should inquire whether he is entitled to the benefit of a tax treaty with respect to any transaction involving the Notes. It is the responsibility of the party claiming the benefits of a tax treaty in respect of interest payments to file with the payer or us a certificate as to his residence. In the absence of sufficient proof, the payer or we must withhold taxes in accordance with the above discussion.

In order to claim the benefit of a tax rate reduction or tax exemption available under the applicable tax treaties, a non-resident holder should submit to the payer of such Korean source income an application (for a reduced withholding tax rate, the "application for entitlement to reduced tax rate," and for an exemption from withholding tax, the "application for exemption" under a tax treaty along with a certificate of the non-resident holder's tax residence issued by a competent authority of the non-resident holder's residence country) as the beneficial owner of such Korean source income ("BO Application"). Such application should be submitted to the withholding agent prior to the payment date of the relevant income. Subject to certain exceptions, where the relevant income is paid to an overseas investment vehicle (which is not the beneficial owner of such income) ("OIV"), a beneficial owner claiming the benefit of an applicable tax treaty with respect to such income must submit its BO Application to such OIV, which must submit an OIV report and a schedule of beneficial owners to the withholding agent prior to the payment date of such income. In the case of a tax exemption application, the withholding agent is required to submit such application (together with the applicable OIV report in the case of income paid to an OIV) to the relevant district tax office by the ninth day of the month following the date of the payment of such income.

**Withholding and Gross Up**

As mentioned above, interest on the Notes is exempt from any withholding or deduction on account of income tax or corporation tax pursuant to STTCL. However, in the event that the payer or we are required by law to make any withholding or deduction for or on account of any Korean taxes (as more fully described in "Terms and Conditions of the Notes — Additional Amounts") we have agreed to pay (subject to the customary exceptions as set out in "Terms and Conditions of the Notes — Additional Amounts") such Additional Amounts as may be necessary in order that the net amounts received by the Holder of any Note after such withholding or deduction shall equal the respective amounts which would have been received by such Holder in the absence of such withholding or deduction.

## PLAN OF DISTRIBUTION

Under the terms and conditions contained in a purchase agreement dated January 22, 2018 (the "Purchase Agreement"), we have agreed to sell to BNP Paribas, Citigroup Global Markets Inc., The Hongkong and Shanghai Banking Corporation Limited and UBS AG Hong Kong Branch (together, the "Initial Purchasers"), the following principal amount of Notes.

| Initial Purchasers | Principal Amount of the Notes |
|---|---|
| BNP Paribas | US$100,000,000 |
| Citigroup Global Markets Inc. | 100,000,000 |
| The Hongkong and Shanghai Banking Corporation Limited | 100,000,000 |
| UBS AG Hong Kong Branch | 100,000,000 |
| Total | US$400,000,000 |

The Purchase Agreement provides that the Initial Purchasers are obligated to purchase all of the Notes, if any are purchased. The Purchase Agreement also provides that if an Initial Purchaser defaults, the purchase commitments of non-defaulting Initial Purchasers may be increased or the offering may be terminated. Each of the Initial Purchasers proposes to offer the Notes initially at the offering price on the cover page of this Offering Circular. After the initial offering, the offering price may be changed.

We have agreed to indemnify each of the Initial Purchasers against certain liabilities, including liabilities under the Securities Act, or to contribute the Initial Purchasers may be required to make in respect of those liabilities.

The Initial Purchasers are offering the Notes, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the Notes, and other conditions contained in the Purchase Agreement, such as the receipt by the Initial Purchasers of officer's certificates and legal opinions. The Initial Purchasers reserve the right to withdraw, cancel or modify offers to investors and to reject orders in whole or in part.

### Commissions and Discounts

The purchase price for the Notes will be the offering price set forth on the cover page of this Offering Circular net of a combined management and underwriting commission. After the initial offering, the offering price or any other term of the offering may be changed.

### New Issue of Notes

The Notes are a new issue of securities with no established trading market. The Initial Purchasers have advised that they presently intend to make a market in the Notes after completion of the offering. However, they are under no obligation to do so and may discontinue any market-making activities at any time without any notice. We cannot assure the liquidity of the trading market for the Notes. If an active trading market for the Notes does not develop, the market price and liquidity of the Notes may be adversely affected. If the Notes are traded, they may trade at a discount from their initial offering price, depending on prevailing interest rates, the market for similar securities, our operating performance and financial condition, general economic conditions and other factors.

**Settlement**

Delivery of the Notes is expected on or about January 29, 2018.

**No Sales of Similar Securities**

For a period of thirty (30) days after the date hereof, we will not, without the prior written consent of the Initial Purchasers, (i) offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any debt securities (other than those denominated in Korean Won) issued or guaranteed by us and having a maturity of more than one year from the date of issue, (ii) enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of the Notes, whether any such swap or transaction described in clause (i) or (ii) above is to be settled by delivery of Notes or such other securities, in cash or otherwise or (iii) publicly disclose the intention to make any transaction described in clause (i) or (ii) above. We will not at any time offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any securities under circumstances where such offer, sale, pledge, contract or disposition would cause the exemption afforded by Section 4(2) of the Securities Act or the safe harbor of Regulation S to cease to be applicable to the offer and sale of the Notes.

**Short Positions**

In connection with the offering, the Initial Purchasers may purchase and sell the Notes in the open market. These transactions may include short sales and purchases on the open market to cover positions created by short sales. Short sales involve the sale by the Initial Purchasers of a greater principal amount of Notes than they are required to purchase in the offering. The Initial Purchasers must close out any short position by purchasing Notes in the open market. A short position is more likely to be created if the Initial Purchasers are concerned that there may be downward pressure on the price of the Notes in the open market after pricing that could adversely affect investors who purchase in the offering.

Similar to other purchase transactions, the Initial Purchasers' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of the Notes or preventing or retarding a decline in the market price of the Notes. As a result, the price of the Notes may be higher than the price that might otherwise exist in the open market.

None of us and the Initial Purchasers make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the Notes. In addition, none of us and the Initial Purchasers make any representation that the Initial Purchasers will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

**Selling Restrictions**

***General***

No action has been or will be taken in any jurisdiction that would permit a public offering of the Notes, or the possession, circulation or distribution of this Offering Circular or any amendment or supplement to this Offering Circular, in any country or jurisdiction where action for any such purposes is required. Accordingly, the Notes may not be offered or sold, directly or indirectly, and neither this Offering Circular nor any other offering material or advertisements in connection with the Notes may be distributed or published, in or from any country or jurisdiction except under circumstances that will result in compliance with applicable laws and regulations.

***United States***

The Notes have not been and will not be registered under the Securities Act and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons (as defined in Regulation S) except in transactions exempt from, or not subject to, the registration requirements of the Securities Act and applicable state securities laws. In addition, until 40 days after the commencement of this offering, an offer or sale of Notes within the United States by an Initial Purchaser (whether or not participating in this offering) may violate the registration requirements of the Securities Act if such offer or sale is made otherwise than in accordance with Rule 144A.

The Initial Purchasers, through their respective affiliates, acting as selling agents where applicable, propose to offer the Notes to certain non-U.S. persons in offshore transactions in reliance on Regulation S and in accordance with applicable law and propose to offer the Notes to qualified institutional buyers in the United States pursuant to Rule 144A. Each of the Initial Purchasers has agreed with the Company that, except as permitted under the Purchase Agreement, it will not offer, sell or deliver the Notes within the United States or to U.S. persons. Any offer or sale of the Notes in the United States in reliance on Rule 144A will be made by broker-Initial Purchasers who are registered as such under the Exchange Act. Terms used in this paragraph have the meanings given to them by Regulation S. Transfer of the Notes will be restricted as described under "Transfer Restrictions".

***European Economic Area***

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each such Member State, a "Relevant Member State"), each of the Initial Purchasers has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the "Relevant Implementation Date"), it has not made and will not make an offer of Notes which are the subject of the offering contemplated by this Offering Circular as completed by the final terms in relation thereto, to the public in that Relevant Member State, except that it may, with effect from and including the Relevant Implementation Date, make an offer of such Notes to the public in that Relevant Member State:

(a) if the final terms in relation to the Notes specify that an offer of those Notes may be made other than pursuant to Article 3(2) of the Prospectus Directive in that Relevant Member State (a "Non-exempt Offer"), following the date of publication of a prospectus in relation to such Notes which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, provided that any such prospectus has subsequently been completed by the final terms contemplating such Non-exempt Offer, in accordance with the Prospectus Directive in the period beginning and ending on the dates specified in such prospectus or final terms, as applicable;

(b) at any time to any legal entity which is a qualified investor as defined in the Prospectus Directive;

(c) at any time to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the relevant Initial Purchaser or Initial Purchasers nominated by the Company for any such offer; or

(d) at any time in any other circumstances falling within Article 3(2) of the Prospectus Directive;

provided that no such offer of Notes referred to in (b) to (d) above shall require the Company or any Initial Purchaser to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any Notes in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe the Notes, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression "Prospectus Directive" means Directive 2003/71/EC (as amended, including by Directive 2010/73/EU), and includes any relevant implementing measure in each Relevant Member State.

The European Economic Area selling restriction described above is in addition to any other applicable selling restriction set out below.

***United Kingdom***

Each of the Initial Purchasers has severally represented and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act of 2000 (the "FSMA")) received by it in connection with the issue or sale of the Notes in circumstances in which Section 21(1) of the FSMA does not apply to us; 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 Notes in, from or otherwise involving the United Kingdom.

***Korea***

Each Initial Purchaser has represented and agreed that the Notes have not been and will not be offered, delivered or sold directly or indirectly in Korea or to any resident of Korea or to others for re-offering or resale directly or indirectly in Korea or to any resident of Korea (as defined in the Foreign Exchange Transactions Act of Korea and the regulations thereunder) except as otherwise permitted under applicable Korean laws and regulations.

In addition, each Initial Purchaser has confirmed that during the first year after the issuance of the Notes, the Notes may not be transferred to any resident of Korea other than a Korean QIB who is registered with KOFIA as a Korean QIB and subject to the requirement of monthly reports with the KOFIA of its holding of Korean QIB bonds as defined in the Regulation on Issuance, Public Disclosure, etc. of Securities of Korea, provided that (a) the Notes are denominated, and the principal and interest payments thereunder are made, in a currency other than Korean won, (b) the amount of the Notes acquired by such Korean QIBs in the primary market is limited to less than 20% of the aggregate issue amount of the Notes, (c) the Notes are listed on one of the major overseas securities markets designated by the Financial Supervisory Service of Korea, or certain procedures, such as registration or report with a foreign financial investment regulator, have been completed for offering of the Notes in a major overseas securities market, (d) the one-year restriction on offering, delivering or selling of Notes to a Korean resident other than a Korean QIB is expressly stated in the Notes, the relevant purchase agreement and offering circular and (e) the Company and the Initial Purchasers shall individually or collectively keep the evidence of fulfillment of conditions (a) through (d) above after having taken necessary actions therefor.

Each Initial Purchaser has undertaken to use commercially reasonable best measures as an Initial Purchaser in the ordinary course of its business so that any securities Initial Purchaser to which it sells the Notes confirms that it is purchasing such Notes as principal and agrees with such Initial Purchaser that it will comply with the restrictions described above.

***Japan***

The Notes have not been and will not be registered under the Financial Instruments and Exchange Law of Japan. Each Initial Purchaser has severally and not jointly represented and agreed that it has not offered or sold, and it will not offer or sell, directly or indirectly, any Notes in Japan or to, or for the account or benefit of, any resident of Japan or to, or for the account or benefit of, any resident for reoffering or resale, directly or indirectly, in Japan or to, or for the account or benefit of, any resident of Japan, except (i) pursuant to an exemption from the registration requirements of, or otherwise in compliance with, the Financial Instruments and Exchange Law of Japan and (ii) in compliance with the other relevant laws and regulations of Japan.

***Hong Kong***

Each Initial Purchaser has represented and agreed and each further Initial Purchaser appointed under the Program will be required to represent and agree that:

(a) it has not offered or sold, and will not offer or sell, in Hong Kong Special Administrative Region of the People's Republic of China ("Hong Kong"), by means of any document, any Notes except for Notes which are a "structured product" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong (the "SFO"), other than (i) to "professional investors" as defined in 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 "Companies Ordinance") or which do not constitute an offer to the public within the meaning of the Companies Ordinance; 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 Notes which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to Notes 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 thereunder.

***Singapore***

Each Initial Purchaser has acknowledged that this Offering Circular has not been and will not be registered as a prospectus with the Monetary Authority of Singapore under the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"). Each Initial Purchaser represents, warrants and agrees that it has not offered or sold any Notes or caused the Notes to be made the subject of an invitation for subscription or purchase, and will not offer or sell any Notes or cause the Notes 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 and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Notes, whether directly or indirectly, to any

person in Singapore other than (i) to an institutional investor under Section 274 of the SFA, (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), 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 Notes 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 (as defined in Section 239(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 Notes pursuant to an offer made under Section 275 of the SFA except:

(1) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275 (1A) or Section 276(4)(i)(B) of the SFA;

(2) where no consideration is or will be given for the transfer;

(3) where the transfer is by operation of law;

(4) as specified in Section 276(7) of the SFA; or

(5) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

**Other Relationships**

Some of the Initial Purchasers and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. They have received, or may in the future receive, customary fees and commissions for these transactions.

The Initial Purchasers or certain of their affiliates may purchase Notes and be allocated Notes for asset management and/or proprietary purposes but not with a view to distribution. The Initial Purchasers or their respective affiliates may purchase Notes for its or their own account and enter into transactions, including credit derivatives, such as asset swaps, repackaging and credit default swaps relating to Notes and/or our other securities at the same time as the offer and sale of Notes or in secondary market transactions. Such transactions would be carried out as bilateral trades with selected counterparties and separately from any existing sale or resale of Notes to which this Offering Circular relates (notwithstanding that such selected counterparties may also be purchasers of Notes). We have been advised by the Initial Purchasers that they may offer and sell Notes to or through any of their respective affiliates and any such affiliate may offer and sell Notes purchased by it to or through any Initial Purchaser.

In addition, in the ordinary course of their business activities, the Initial Purchasers and their affiliates may 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. Such investments and securities activities may involve securities and/or instruments of ours and our affiliates. Certain of the Initial Purchasers or their affiliates that have a lending relationship with us routinely hedge their credit exposure to us consistent with their customary risk management policies. Typically, such Initial Purchasers and their affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities, including potentially the Notes. Any such short positions could adversely affect future trading prices of the Notes. The Initial Purchasers and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

## TRANSFER RESTRICTIONS

*Because of the following restrictions, investors are advised to consult legal counsel prior to making any offer, resale, pledge or other transfer of the Notes offered pursuant to this Offering Circular.*

### Transfer Restrictions under U.S. Securities Laws

The Notes have not been and will not be registered under the Securities Act or the securities laws of any state of the United States or the securities laws of any other jurisdiction. The Notes may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons (as defined in Regulation S), except in reliance on Rule 144A to QIBs. The Notes may also be offered and sold to non-U.S. persons in offshore transactions in reliance on Regulation S.

Each purchaser of the Notes hereunder will be deemed to have represented and agreed as follows (terms used in this paragraph that are defined in Rule 144A or in Regulations S under the Securities Act are used in this Offering Circular as defined in the Securities Act):

(1) it is purchasing the Notes for its own account or an account with respect to which it exercises sole investment discretion, and it and any such account (i) is a QIB, and is aware that the sale to it is being made in reliance on Rule 144A or (ii) is outside the United States and is not a U.S. person;

(2) it acknowledges that the Notes have not been and will not be registered under the Securities Act or with any securities regulatory authority of any jurisdiction and may not be offered or sold within the United States except as set forth below;

(3) it understands and agrees that if in the future it decides to sell, pledge or otherwise transfer any Notes or any beneficial interest in any Notes, such Notes may be offered, resold, pledged or transferred only (A)(i) to the Company, (ii) to a person whom the seller reasonably believes is a qualified institutional buyer in a transaction meeting the requirements of Rule 144A, (iii) to a non-U.S. person in an offshore transaction meeting the requirements of Rule 903 or 904 of Regulation S under the Securities Act, (iv) pursuant to an exemption from registration under the Securities Act provided by Rule 144 under the Securities Act (if available) or (v) pursuant to another exemption from the Securities Act, provided that, as a condition to the registration of the transfer thereof, the Company or the Fiscal Agent may require the delivery of any documents, including an opinion of counsel that it, in its sole discretion, may deem necessary or appropriate to evidence compliance with such exemption, or (B) pursuant to an effective registration statement under the Securities Act, and, in each of such cases in accordance with any applicable securities laws of any state of the United States;

(4) it agrees to, and each subsequent holder is required to, notify any purchaser of the Notes from it of the resale restrictions referred to in clause (3)(A) above, if then applicable;

(5) it understands and agrees that Notes initially offered in the United States to QIBs will be represented by one or more Restricted Global Notes and that Notes initially offered to non-U.S. persons outside the United States in reliance on Regulation S will be represented by one or more Unrestricted Global Notes;

(6) it understands that the Restricted Global Notes will, unless otherwise agreed by the Company, bear a legend substantially to the following effect:

"THIS SECURITY HAS NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"). THE HOLDER HEREOF, BY PURCHASING THIS SECURITY, AGREES FOR THE BENEFIT OF KOREA SOUTHERN POWER CO., LTD. (THE "COMPANY") THAT THIS SECURITY MAY BE OFFERED, RESOLD, PLEDGED OR OTHERWISE TRANSFERRED ONLY (A)(i) TO THE COMPANY, (ii) TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A QUALIFIED INSTITUTIONAL BUYER, AS DEFINED IN RULE 144A UNDER THE SECURITIES ACT, IN A TRANSACTION MEETING THE REQUIREMENTS OF RULE 144A UNDER THE SECURITIES ACT, (iii) TO A NON-U.S. PERSON IN AN OFFSHORE TRANSACTION MEETING THE REQUIREMENTS OF RULE 903 OR 904 OF REGULATION S UNDER THE SECURITIES ACT, (iv) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT PROVIDED BY RULE 144 UNDER THE SECURITIES ACT (IF AVAILABLE) OR (v) PURSUANT TO ANOTHER EXEMPTION FROM THE SECURITIES ACT, PROVIDED THAT, AS A CONDITION TO THE REGISTRATION OF THE TRANSFER THEREOF, THE COMPANY OR THE FISCAL AGENT MAY REQUIRE THE DELIVERY OF ANY DOCUMENTS, INCLUDING AN OPINION OF COUNSEL THAT IT, IN ITS SOLE DISCRETION, MAY DEEM NECESSARY OR APPROPRIATE TO EVIDENCE COMPLIANCE WITH SUCH EXEMPTION, OR (B) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT, AND, IN EACH OF SUCH CASES IN ACCORDANCE WITH ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES."

(7) it understands that the offer or sale of Notes represented by the Unrestricted Global Notes may not be made to a U.S. person or for the account or benefit of a U.S. person (other than a distributor) until the 40th day following the later of the commencement of the offering and the original issue date of the Notes and that the Unrestricted Global Notes will bear a legend to the following effect unless otherwise agreed to by the Company:

"THIS SECURITY (OR ITS PREDECESSOR) WAS ORIGINALLY ISSUED IN A TRANSACTION EXEMPT FROM REGISTRATION UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND MAY NOT BE TRANSFERRED IN THE UNITED STATES OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, ANY U.S. PERSON EXCEPT PURSUANT TO AN AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND ALL APPLICABLE STATE SECURITIES LAWS. TERMS USED ABOVE HAVE THE MEANINGS GIVEN TO THEM IN REGULATIONS UNDER THE SECURITIES ACT."

(8) it acknowledges that prior to any proposed transfer of the Notes in certificated form or of beneficial interests in the Global Notes (other than pursuant to an effective registration statement), the holder of the Notes or the holder of beneficial interests in the Global Notes, as the case may be, may be required to provide certificates and other documentation relating to the manner of such transfer and submit such certifications and other documentation as provided in the Fiscal Agency Agreement; and

(9) it acknowledges that the Company, the Initial Purchasers, the Fiscal Agent and others will rely upon the truth and accuracy of the foregoing acknowledgments, representations and agreements and agrees that if any of such acknowledgments, representations or warranties deemed to have been made by virtue of its purchase of the Notes are no longer accurate, it shall promptly notify the Company; and if it is acquiring any Notes as a fiduciary or agent for one or more accounts, it represents that it has sole investment discretion with respect to each such account and that it has full power to make the foregoing acknowledgments, representations and agreements on behalf of each such account.

**Transfer Restrictions under Korean Laws and Regulations**

Each purchaser of the Notes, by accepting delivery of this Offering Circular, will be deemed to have acknowledged, represented and agreed as follows:

THE NOTES HAVE NOT BEEN REGISTERED UNDER THE FSCMA. ACCORDINGLY, THE NOTES MAY NOT BE OFFERED, SOLD OR DELIVERED, DIRECTLY OR INDIRECTLY, IN KOREA OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, ANY RESIDENT OF KOREA (AS SUCH TERM IS DEFINED UNDER THE FOREIGN EXCHANGE TRANSACTIONS ACT OF KOREA AND ITS ENFORCEMENT DECREE) OR TO OTHERS FOR RE-OFFERING OR RESALE, EXCEPT AS OTHERWISE PERMITTED UNDER APPLICABLE KOREAN LAWS AND REGULATIONS.

IN ADDITION, DURING THE FIRST YEAR AFTER THE ISSUANCE OF THE NOTES, THE NOTES MAY NOT BE TRANSFERRED TO ANY RESIDENT OF KOREA OTHER THAN A KOREAN QIB WHO IS REGISTERED WITH THE KOFIA AS A KOREAN QIB AND SUBJECT TO THE REQUIREMENT OF MONTHLY REPORTS WITH THE KOFIA OF ITS HOLDING OF KOREAN QIB BONDS AS DEFINED IN THE REGULATION ON ISSUANCE, PUBLIC DISCLOSURE, ETC. OF SECURITIES OF KOREA, PROVIDED THAT (A) THE NOTES ARE DENOMINATED, AND THE PRINCIPAL AND INTEREST PAYMENTS THEREUNDER ARE MADE, IN A CURRENCY OTHER THAN KOREAN WON, (B) THE AMOUNT OF THE NOTES ACQUIRED BY SUCH KOREAN QIBS IN THE PRIMARY MARKET IS LIMITED TO LESS THAN 20 PER CENT. OF THE AGGREGATE ISSUE AMOUNT OF THE NOTES, (C) THE NOTES ARE LISTED ON ONE OF THE MAJOR OVERSEAS SECURITIES MARKETS DESIGNATED BY THE FINANCIAL SUPERVISORY SERVICE OF KOREA, OR CERTAIN PROCEDURES, SUCH AS REGISTRATION OR REPORT WITH A FOREIGN FINANCIAL INVESTMENT REGULATOR, HAVE BEEN COMPLETED FOR OFFERING OF THE NOTES IN A MAJOR OVERSEAS SECURITIES MARKET, (D) THE ONE-YEAR RESTRICTION ON OFFERING, DELIVERING OR SELLING OF NOTES TO A KOREAN RESIDENT OTHER THAN A KOREAN QIB IS EXPRESSLY STATED IN THE NOTES, THE RELEVANT PURCHASE AGREEMENT AND OFFERING CIRCULAR AND (E) THE COMPANY AND THE INITIAL PURCHASERS SHALL INDIVIDUALLY OR COLLECTIVELY KEEP THE EVIDENCE OF FULFILLMENT OF CONDITIONS (A) THROUGH (D) ABOVE AFTER HAVING TAKEN NECESSARY ACTIONS THEREFOR.

**Transfer Restrictions under Singapore Laws**

Where the Notes are initially subscribed or purchased by (i) an institutional investor under Section 274 of the SFA, or (ii) a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA, the Notes may only be sold or transferred: (a) at any time, to an institutional investor under Section 274 of the SFA; (b) at any time, to a relevant person defined in Section 275(2) of the SFA or to any person pursuant to an offer referred to in Section 275(1A) of the SFA; or (c) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Further, where the Notes 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 (as defined in Section 239(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 Notes pursuant to an offer made under Section 275 of the SFA except:

(1) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(2) where no consideration is or will be given for the transfer;

(3) where the transfer is by operation of law;

(4) as specified in Section 276(7) of the SFA; or

(5) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

## LEGAL MATTERS

Cleary Gottlieb Steen & Hamilton LLP, U.S. counsel to the Initial Purchasers, will pass upon certain legal matters as to United States law relating to the Notes. Bae, Kim & Lee LLC, our Korean counsel, will pass upon certain matters as to Korean law. Cleary Gottlieb Steen & Hamilton LLP may rely as to all matters of Korean law on Bae, Kim & Lee LLC. Bae, Kim & Lee LLC may rely on Cleary Gottlieb Steen & Hamilton LLP as to all matters of New York law.

## INDEPENDENT AUDITORS

The consolidated financial statements as of and for the years ended December 31, 2014, 2015 and 2016 included elsewhere in this Offering Circular have been audited by KPMG Samjong Accounting Corp., independent auditors, as stated in their reports appearing elsewhere in this Offering Circular.

With respect to the unaudited consolidated interim financial statements as of September 30, 2017 and for the three-month and nine-month periods ended September 30, 2016 and 2017, included elsewhere in this Offering Circular, KPMG Samjong Accounting Corp. have reported that they applied limited procedures in accordance with professional standards for a review of such information. However, their separate report appearing elsewhere in this Offering Circular states that they did not audit and they do not express an opinion on such interim financial information. Accordingly, the degree of reliance on their separate report on such information should be restricted in light of the limited nature of the review procedures applied.

## INDEX TO FINANCIAL STATEMENTS


| | *Page* |
|---|---|
| Independent Auditors' Review Report | F-2 |
| Condensed Consolidated Interim Statements of Financial Position as of September 30, 2017 and December 31, 2016 | F-4 |
| Condensed Consolidated Interim Statements of Comprehensive Income for the three and nine-month periods ended September 30, 2017 and 2016 | F-6 |
| Condensed Consolidated Interim Statements of Changes in Equity for the nine-month periods ended September 30, 2017 and 2016 | F-8 |
| Condensed Consolidated Interim Statements of Cash Flows for the nine-month periods ended September 30, 2017 and 2016 | F-10 |
| Notes to the Condensed Consolidated Interim Financial Statements | F-12 |
| Independent Auditors' Report | F-84 |
| Consolidated Statements of Financial Position as of December 31, 2016 and 2015 | F-86 |
| Consolidated Statements of Comprehensive Income for the years ended December 31, 2016 and 2015 | F-88 |
| Consolidated Statements of Changes in Equity for the years ended December 31, 2016 and 2015 | F-89 |
| Consolidated Statements of Cash Flows for the years ended December 31, 2016 and 2015 | F-91 |
| Notes to the Consolidated Financial Statements | F-93 |
| Independent Auditors' Report | F-185 |
| Consolidated Statements of Financial Position as of December 31, 2015 and 2014 | F-187 |
| Consolidated Statements of Comprehensive Income for the years ended December 31, 2015 and 2014 | F-189 |
| Consolidated Statements of Changes in Equity for the years ended December 31, 2015 and 2014 | F-190 |
| Consolidated Statements of Cash Flows for the years ended December 31, 2015 and 2014 | F-192 |
| Notes to the Consolidated Financial Statements | F-194 |

# Independent Auditors' Review Report

The Board of Directors and Shareholder
Korea Southern Power Co., Ltd.:

**Reviewed Financial Statements**
We have reviewed the accompanying condensed consolidated interim financial statements of Korea Southern Power Co., Ltd. and its subsidiaries (the "Group"), which comprise the condensed consolidated interim statement of financial position as of September 30, 2017, the condensed consolidated interim statements of comprehensive income for the three-month and nine-month periods ended September 30, 2017 and 2016, the condensed consolidated interim statements of changes in equity and cash flows for the nine-month periods ended September 30, 2017 and 2016 and notes, comprising a summary of significant accounting policies and other explanatory information.

**Management's Responsibility**
Management is responsible for the preparation and fair presentation of these condensed consolidated interim financial statements in accordance with Korean International Financial Reporting Standards ("K-IFRS") No.1034, 'Interim Financial Reporting', and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

**Auditors' Review Responsibility**
Our responsibility is to issue a report on these condensed consolidated interim financial statements based on our reviews.

We conducted our reviews in accordance with the Review Standards for Quarterly and Semiannual Financial Statements established by the Securities and Futures Commission of the Republic of Korea. A review of interim financial statements consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Korean Standards on Auditing and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

**Review Conclusion**
Based on our reviews, nothing has come to our attention that causes us to believe that the accompanying condensed consolidated interim financial statements referred to above are not prepared, in all material respects, in accordance with K-IFRS No.1034, 'Interim Financial Reporting'.

**Other Matters**
The procedures and practices utilized in the Republic of Korea to review such condensed consolidated interim financial statements may differ from those generally accepted and applied in other countries.

The consolidated statement of financial position of the Group as of December 31, 2016, and the related consolidated statements of comprehensive income, changes in equity and cash flows for the year then ended, which are not accompanying this report, were audited by us in accordance with Korean Standards on Auditing and our report thereon, dated March 2, 2017, expressed an unqualified opinion. The accompanying condensed consolidated statement of financial position of the Group as of December 31, 2016, presented for comparative purposes, is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

KPMG Samjong Accounting Corp.

Seoul, Korea
November 13, 2017

This report is effective as of November 13, 2017, the review report date. Certain subsequent events or circumstances, which may occur between the review report date and the time of reading this report, could have a material impact on the accompanying condensed consolidated interim financial statements and notes thereto. Accordingly, the readers of the review report should understand that the above review report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES

Condensed Consolidated Interim Statements of Financial Position

**As of September 30, 2017 and December 31, 2016**

(Unaudited)

| *In millions of won* | **Note** | | **September 30, 2017** | **December 31, 2016** |
|---|---|---|---|---|
| **Assets** | | | | |
| Cash and cash equivalents | 5,6,7,38 | ₩ | 183,929 | 320,431 |
| Current financial assets | 7,10,11,12,38 | | 184,352 | 14,952 |
| Trade and other receivables | 7,8,14,38,39 | | 429,967 | 551,786 |
| Inventories | 13 | | 261,073 | 246,423 |
| Income tax receivables | 35 | | 9,623 | - |
| Current non-financial assets | 15 | | 63,945 | 122,957 |
| **Total current assets** | | | 1,132,889 | 1,256,549 |
| Non-current financial assets | 7,9,10,11,12,38 | | 164,414 | 145,772 |
| Non-current trade and other receivables | 7,8,14,38 | | 22,099 | 17,642 |
| Property, plant and equipment | 4,18,24 | | 8,467,242 | 8,427,591 |
| Intangible assets | 4,19 | | 22,536 | 24,763 |
| Investments in associates and joint ventures | 4,17,39 | | 260,593 | 179,652 |
| Non-current non-financial assets | 4,15 | | 13,726 | 13,822 |
| **Total non-current assets** | | | 8,950,610 | 8,809,242 |
| **Total assets** | | ₩ | 10,083,499 | 10,065,791 |

*See accompanying notes to the condensed consolidated interim financial statements.*

KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES

Condensed Consolidated Interim Statements of Financial Position, Continued

**As of September 30, 2017 and December 31, 2016**

(Unaudited)

| *In millions of won* | **Note** | | **September 30, 2017** | **December 31, 2016** |
|---|---|---|---|---|
| **Liabilities** | | | | |
| Trade and other payables | 7,20,38,39 | ₩ | 476,199 | 529,371 |
| Current financial liabilities | 7,10,21,38,40 | | 853,800 | 770,907 |
| Income tax payables | 35 | | 23 | 103,498 |
| Current non-financial liabilities | 25 | | 49,051 | 24,477 |
| Current provisions | 23,38,41 | | 53,538 | 61,300 |
| **Total current liabilities** | | | 1,432,611 | 1,489,553 |
| Non-current trade and other payables | 7,20,38 | | 21,804 | 19,629 |
| Non-current financial liabilities | 7,21,38 | | 3,915,162 | 4,007,343 |
| Non-current non-financial liabilities | 25 | | 142 | - |
| Employee benefits obligations, net | 22,38 | | 93,249 | 83,636 |
| Deferred tax liabilities, net | 35 | | 292,386 | 259,459 |
| **Total non-current liabilities** | | | 4,322,743 | 4,370,067 |
| **Total liabilities** | | | 5,755,354 | 5,859,620 |
| **Equity** | | | | |
| Share capital | 26 | | 1,854,008 | 1,854,008 |
| Retained earnings | 22,27 | | 2,441,602 | 2,313,821 |
| Other components of equity | 7,9,10,28 | | (14,013) | (8,194) |
| **Equity attributable to owners of the Company** | | | 4,281,597 | 4,159,635 |
| **Non-controlling interests** | 16 | | 46,548 | 46,536 |
| **Total equity** | | | 4,328,145 | 4,206,171 |
| **Total liabilities and equity** | | ₩ | 10,083,499 | 10,065,791 |

*See accompanying notes to the condensed consolidated interim financial statements.*

KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES

Condensed Consolidated Interim Statements of Comprehensive Income

**For the three and nine-month periods ended September 30, 2017 and 2016**

(Unaudited)

| *In millions of won, except earnings per share information* | Note | | September 30, 2017 | | September 30, 2016 | |
|---|---|---|---|---|---|---|
| | | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| Sales | 4,29,39 | ₩ | 1,234,126 | 3,371,660 | 1,071,158 | 2,981,308 |
| Cost of sales | 36,39 | | (1,159,604) | (2,952,937) | (942,221) | (2,496,572) |
| **Gross profit** | | | 74,522 | 418,723 | 128,937 | 484,736 |
| Selling and administrative expenses | 4,18,19,22,24, 30,36,38,39 | | (34,921) | (76,162) | (22,310) | (63,195) |
| **Operating income** | 4 | | 39,601 | 342,561 | 106,627 | 421,541 |
| Other non-operating income | 23,31,39 | | 1,639 | 6,177 | 1,837 | 5,150 |
| Other non-operating expenses | 23,31 | | (842) | (12,490) | (449) | (953) |
| Other profit (loss), net | 7,32,38,39 | | (5,741) | (9,752) | 4,487 | 374 |
| Finance income | 7,10,33,38 | | 13,031 | 41,731 | 28,609 | 37,916 |
| Finance expenses | 7,10,34,38 | | (35,187) | (105,311) | (45,107) | (84,610) |
| Profit (loss) related to associates and joint ventures, net | 4,17 | | 3,713 | (8,028) | (4,380) | (1,642) |
| **Profit before income tax** | | | 16,214 | 254,888 | 91,624 | 377,776 |
| Income tax expense | 4,35 | | (3,612) | (68,166) | (21,518) | (84,168) |
| **Profit for the period** | 4 | | 12,602 | 186,722 | 70,106 | 293,608 |
| **Other comprehensive income (loss):** | | | | | | |
| **Items that will not be reclassified subsequently to profit or loss** | | | | | | |
| Remeasurement of defined benefit liability, net of tax | 22,27 | | 2,263 | 1,689 | (1,775) | (16,203) |
| Share in other comprehensive income of associates and joint ventures, net of tax | 17,27 | | - | 16 | - | - |
| **Items that will be reclassified subsequently to profit or loss** | | | | | | |
| Net changes in the unrealized fair value of available-for-sale financial assets, net of tax | 7,9,28,38 | | (9,065) | (3,331) | - | 298 |
| Net changes in the unrealized fair value of derivatives using cash flow hedge accounting, net of tax | 7,10,28 | | 1,130 | 1,579 | 542 | 2,005 |
| Share in other comprehensive loss of associates and joint ventures, net of tax | 17,28 | | (2,383) | (2,785) | (7) | (41) |
| Foreign currency translation of foreign operations, net of tax | 28 | | 2,951 | (1,286) | (1,297) | (1,239) |
| **Total comprehensive income for the period** | | ₩ | 7,498 | 182,604 | 67,569 | 278,428 |

*See accompanying notes to the condensed consolidated interim financial statements.*

KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES

Condensed Consolidated Interim Statements of Comprehensive Income, Continued

**For the three and nine-month periods ended September 30, 2017 and 2016**

(Unaudited)

| *In millions of won, except earnings per share information* | Note | | September 30, 2017 | | September 30, 2016 | |
|---|---|---|---|---|---|---|
| | | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| **Profit attributable to:** | | | | | | |
| Owners of the Company | | ₩ | 12,671 | 186,706 | 68,884 | 292,557 |
| Non-controlling interests | 16 | | (69) | 16 | 1,222 | 1,051 |
| **Profit for the period** | | ₩ | 12,602 | 186,722 | 70,106 | 293,608 |
| **Total comprehensive Income attributable to:** | | | | | | |
| Owners of the Company | | ₩ | 7,514 | 182,592 | 66,386 | 277,416 |
| Non-controlling interests | | | (16) | 12 | 1,183 | 1,012 |
| **Total comprehensive income for the period** | | ₩ | 7,498 | 182,604 | 67,569 | 278,428 |
| **Earnings per share** | | | | | | |
| Basic earnings per share | 37 | ₩ | 265 | 3,911 | 1,505 | 6,393 |

*See accompanying notes to the condensed consolidated interim financial statements.*

KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES

Condensed Consolidated Interim Statements of Changes in Equity

**For the nine-month periods ended September 30, 2017 and 2016**

(Unaudited)

*In millions of won*

| | Equity attributable to owners of the Company | | | | | |
|---|---|---|---|---|---|---|
| | Share capital | Retained earnings | Other components of equity | Subtotal | Non-controlling Interests | Total Equity |
| **Balance at January 1, 2016** | ₩ 1,773,522 | 1,918,839 | (6,825) | 3,685,536 | 25,001 | 3,710,537 |
| **Total comprehensive income:** | | | | | | |
| Profit for the period | - | 292,557 | - | 292,557 | 1,051 | 293,608 |
| **Items that will not be reclassified subsequently to profit or loss:** | | | | | | |
| Remeasurement of defined benefit liability, net of tax | - | (16,203) | - | (16,203) | - | (16,203) |
| **Items that will be reclassified subsequently to profit or loss:** | | | | | | |
| Net changes in the unrealized fair value of available-for-sale financial assets, net of tax | - | - | 298 | 298 | - | 298 |
| Net changes in the unrealized fair value of derivatives using cash flow hedge accounting, net of tax | - | - | 2,005 | 2,005 | - | 2,005 |
| Share in other comprehensive loss of associates and joint ventures, net of tax | - | - | (41) | (41) | - | (41) |
| Foreign currency translation of foreign operations, net of tax | - | - | (1,200) | (1,200) | (39) | (1,239) |
| **Transactions with owners of the Company, recognized directly in equity:** | | | | | | |
| Dividends paid | - | (17,849) | - | (17,849) | - | (17,849) |
| Capital increase of subsidiaries | - | - | (192) | (192) | 14,808 | 14,616 |
| Changes in consolidation scope | - | - | - | - | 2 | 2 |
| **Balance at September 30, 2016** | ₩ 1,773,522 | 2,177,344 | (5,955) | 3,944,911 | 40,823 | 3,985,734 |

*See accompanying notes to the condensed consolidated interim financial statements.*

KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES

Condensed Consolidated Interim Statements of Changes in Equity, Continued

**For the nine-month periods ended September 30, 2017 and 2016**

(Unaudited)

*In millions of won*

| | Equity attributable to owners of the Company | | | | | |
|---|---|---|---|---|---|---|
| | Share capital | Retained earnings | Other components of equity | Subtotal | Non-controlling Interests | Total Equity |
| **Balance at January 1, 2017** | ₩ 1,854,008 | 2,313,821 | (8,194) | 4,159,635 | 46,536 | 4,206,171 |
| **Total comprehensive income:** | | | | | | |
| Profit for the period | - | 186,706 | - | 186,706 | 16 | 186,722 |
| **Items that will not be reclassified subsequently to profit or loss:** | | | | | | |
| Remeasurement of defined benefit liability, net of tax | - | 1,689 | - | 1,689 | - | 1,689 |
| Share in other comprehensive income of associates and joint ventures, net of tax | - | 16 | - | 16 | - | 16 |
| **Items that will be reclassified subsequently to profit or loss:** | | | | | | |
| Net changes in the unrealized fair value of available-for-sale financial assets, net of tax | - | - | (3,331) | (3,331) | - | (3,331) |
| Net changes in the unrealized fair value of derivatives using cash flow hedge accounting, net of tax | - | - | 1,579 | 1,579 | - | 1,579 |
| Share in other comprehensive loss of associates and joint ventures, net of tax | - | - | (2,785) | (2,785) | - | (2,785) |
| Foreign currency translation of foreign operations, net of tax | - | - | (1,282) | (1,282) | (4) | (1,286) |
| **Transactions with owners of the Company, recognized directly in equity:** | | | | | | |
| Dividends paid | - | (60,630) | - | (60,630) | - | (60,630) |
| **Balance at September 30, 2017** | ₩ 1,854,008 | 2,441,602 | (14,013) | 4,281,597 | 46,548 | 4,328,145 |

*See accompanying notes to the condensed consolidated interim financial statements.*

KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES
Condensed Consolidated Interim Statements of Cash Flows
**For the nine-month periods ended September 30, 2017 and 2016**
(Unaudited)

| *In millions of won* | | **September 30, 2017** | **September 30, 2016** |
|---|---|---|---|
| **Cash flows from operating activities** | | | |
| Profit for the period | ₩ | 186,722 | 293,608 |
| Adjustments for: | | | |
| Income tax expense | | 68,166 | 84,168 |
| Interest expense | | 76,696 | 48,995 |
| Interest income | | (7,796) | (4,477) |
| Depreciation | | 451,248 | 379,517 |
| Amortization of intangible assets | | 6,731 | 6,259 |
| Retirement benefit expenses | | 16,842 | 12,996 |
| Loss on disposals of property, plant and equipment and intangible assets, net | | 3,421 | 7,233 |
| Gain on foreign currency translations, net | | (24,500) | (33,417) |
| Gain on foreign currency transactions, net | | (4,230) | - |
| Loss on valuation of derivatives instruments, net | | 17,974 | 30,689 |
| Loss on transactions of derivative instruments, net | | 6,001 | 1,282 |
| Equity method loss of associates and joint ventures, net | | 8,087 | 1,638 |
| Loss (gain) on disposal of Investments in associates | | (59) | 4 |
| Loss (gain) on disposal of inventories, net | | 112 | (63) |
| Gain on assets contributed | | (896) | - |
| Reversal of provisions | | (4,379) | (1,859) |
| Accrual of provisions | | 28,579 | 30,201 |
| | | 641,997 | 563,166 |
| Changes in: | | | |
| Trade and other receivables | | 116,081 | 107,696 |
| Inventories | | (14,908) | (13,742) |
| Non-financial assets | | 61,375 | (9,701) |
| Trade and other payables | | (49,245) | 31,325 |
| Current derivative liabilities | | (348) | (1,416) |
| Utilization of current provisions | | (31,962) | (39,431) |
| Non-financial liabilities | | 26,065 | 31,839 |
| Payments of retirement benefit obligations | | (6,033) | (5,378) |
| Other long-term employee benefits | | 118 | (11) |
| | | 101,143 | 101,181 |
| Cash generated from operating activities | | | |
| Interest received | | 7,267 | 3,419 |
| Interest paid | | (112,238) | (109,594) |
| Dividends received | | 302 | 187 |
| Income tax paid | | (148,256) | (55,262) |
| | | (252,925) | (161,250) |
| **Net cash provided by operating activities** | ₩ | 676,937 | 796,705 |

*See accompanying notes to the condensed consolidated interim financial statements.*

KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES
Condensed Consolidated Interim Statements of Cash Flows, Continued
**For the nine-month periods ended September 30, 2017 and 2016**
(Unaudited)

| *In millions of won* | | **September 30, 2017** | **September 30, 2016** |
|---|---|---|---|
| **Cash flows from investing activities** | | | |
| Increase in financial instruments | ₩ | (168,207) | (112,071) |
| Decrease in loans | | 4,002 | 1,064 |
| Increase in loans | | (60,084) | (2,011) |
| Proceeds from government grants | | 362 | - |
| Receipt of financial lease receivables | | 246 | 93 |
| Proceeds from disposal of property, plant and equipment | | 78 | 156 |
| Acquisition of property, plant and equipment | | (458,740) | (496,812) |
| Proceeds from disposal of intangible assets | | | 3 |
| Acquisition of intangible assets | | (1,704) | (540) |
| Decrease in guarantee deposits | | 2,116 | 3,765 |
| Increase in guarantee deposits | | (950) | (3,168) |
| Proceeds from disposal of investments in associates and joint ventures | | 641 | 883 |
| Acquisition of investments in associates and joint ventures | | (90,570) | (50,552) |
| **Net cash used in investing activities** | | (772,810) | (659,190) |
| **Cash flows from financing activities** | | | |
| Proceeds from borrowings | | 100,000 | 189,000 |
| Repayment of borrowings | | (444) | (924) |
| Proceeds from debentures | | 498,615 | 139,539 |
| Repayment of debentures | | (586,620) | (360,000) |
| Settlement of derivate instruments | | 8,210 | - |
| Capital contribution from non-controlling interests | | - | 14,618 |
| Payment of cash dividends | | (60,630) | (17,849) |
| **Net cash used in financing activities** | | (40,869) | (35,616) |
| **Net increase (decrease) in cash and cash equivalents** | | (136,742) | 101,899 |
| Cash and cash equivalents at beginning of the period | | 320,431 | 182,151 |
| Effect of exchange rate fluctuations on cash held | | 240 | (893) |
| **Cash and cash equivalents at end of the period** | ₩ | 183,929 | 283,157 |

*See accompanying notes to the condensed consolidated interim financial statements.*

## 1. Reporting Entity

In accordance with the restructuring plan dated January 21, 1999 for the electricity industry in the Republic of Korea announced by the Ministry of Commerce, Industry and Energy and the Act on Promotion of Restructuring the Electric Power Industry published on December 23, 2000, Korea Southern Power Co., Ltd. (the "KOSPO" or the "Company") was incorporated on April 2, 2001 through the spin-off of the power generation division of Korea Electric Power Corporation (the "KEPCO"). KOSPO and its subsidiaries (the "Group") engage in the generation of electricity and development of electric power resources. The Group sells all generated electricity to KEPCO through the Korea Power Exchange ("KPX") in accordance with Article 31 of the Electricity Business Law. As of September 30, 2017, KEPCO holds all of the KOSPO's outstanding shares.

As of September 30, 2017, the Group operates eight thermal power units including Hadong thermal power plant, Hankyung wind power plant and Sungsan wind power plant and the Group's cumulative power generating capacity is 11,261 megawatt.

## 2. Basis of Preparation

### (1) Statement of Compliance

The condensed consolidated interim financial statements have been prepared in accordance with Korean International Financial Reporting Standards ("K-IFRS"), as prescribed in the *Act on External Audits of Corporations.*

These condensed consolidated interim financial statements were prepared in accordance with K-IFRS No. 1034, 'Interim Financial Reporting' as part of the period covered by the Group's K-IFRS annual financial statements. Selected explanatory notes are included to explain events and transactions that are significant to an understanding of the changes in financial position and performance of the Group since the last annual consolidated financial statements as of and for the year ended December 31, 2016. These condensed consolidated interim financial statements do not include all of the disclosures required for full annual consolidated financial statements.

### (2) Use of Estimates and Judgments

1) Management's judgments, assumptions and estimation uncertainties

The preparation of the condensed consolidated interim financial statements in conformity with K-IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

In preparing these condensed consolidated interim financial statements, the significant judgments made by management in applying the Group's accounting policies and the key sources of estimation uncertainty were the same as those that applied to the consolidated financial statements as of and for the year ended December 31, 2016.

## 2. Basis of Preparation, Continued

### (2) Use of Estimates and Judgments, Continued

2) Measurement of fair value

The Group has an established control framework with respect to the measurement of fair values. This includes a valuation team that has overall responsibility for overseeing all significant fair value measurements, including Level 3 fair values, and reports directly to the chief of financial officer.

The valuation team regularly reviews significant unobservable inputs and valuation adjustments. If third party information, such as broker quotes or pricing services, is used to measure fair values, then the valuation team assesses the evidence obtained from the third parties to support the conclusion that such valuations meet the requirements of K-IFRS including the level in the fair value hierarchy in which such valuation techniques should be classified.

When measuring the fair value of an asset or a liability, the Group uses market observable data as far as possible. Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows.

Level 1 - quoted prices (unadjusted) in active markets for identical assets or liabilities.
Level 2 - inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
Level 3 - inputs for the asset or liability that are not based on observable market data (i.e. unobservable inputs).

If the inputs used to measure the fair value of an asset or a liability might be categorized in different levels of the fair value hierarchy, then 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 Group recognizes transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

## 3. Significant Accounting Policies

The accounting policies applied by the Group in these condensed consolidated interim financial statements are the same as those applied by the Group in its consolidated financial statements as of and for the year ended December 31, 2016.

### (1) New Standards and Interpretations Not Yet Adopted

The following new standards, interpretations and amendments to existing standards have been published and are mandatory for the Group for annual periods beginning after January 1, 2017, and the Group has not early adopted them.

(i) K-IFRS 1109, 'Financial Instruments'

K-IFRS 1109, published on September 25, 2015, is effective for annual periods beginning on or after January 1, 2018, with earlier adoption permitted. It replaces existing guidance in K-IFRS 1039, 'Financial Instruments: Recognition and Measurement'. The Group plans to adopt K-IFRS 1109 for the year beginning on January 1, 2018. K-IFRS 1109 will generally be applied retrospectively; however the Group plans to take advantage of the exemption allowing it not to restate the comparative information for prior periods with respect to classification and measurement including impairment changes. New hedge accounting requirements will generally be applied prospectively except for certain exemptions including the accounting for the time value of options.

Key features of the new standard, K-IFRS 1109, are 1) classification and measurement of financial assets that reflects the business model in which the assets are managed and their cash flow characteristics, 2) impairment methodology that reflects 'expected credit loss' (ECL) model for financial assets, and 3) expanded scope of hedged items and hedging instruments which qualify for hedge accounting and changes in assessment method for effect of hedging relationships.

K-IFRS 1109 will require the Group to assess the financial impact from application of K-IFRS 1109 and revise its accounting processes and internal controls related to financial instruments. Actual impact of adopting K-IFRS 1109 will be dependent on the financial instruments the Group holds and economic conditions at that time as well as accounting policy elections and judgment that it will make in the future.

The Group has not initiated any changes in internal controls processes or accounting processing systems, and has not performed an assessment of the impact resulting from the application of K-IFRS 1109. The Group is currently performing a detailed assessment of the potential impact from the application of K-IFRS 1109. Expected impacts on the consolidated financial statements are generally categorized as follows:

## 3. Significant Accounting Policies, Continued

### (1) New Standards and Interpretations Not Yet Adopted, Continued

(i) K-IFRS 1109, 'Financial Instruments', continued

1) Classification and measurement of financial assets

Under K-IFRS 1109, financial assets are classified into three principal categories; measured at amortized cost, fair value through other comprehensive income (FVOCI) and fair value through profit or loss (FVTPL) based on the business model in which assets are managed and their cash flow characteristics. Under K-IFRS 1109, derivatives embedded in hybrid contracts where the host is a financial asset are not bifurcated. Instead, the hybrid financial instrument as a whole is assessed for classification.

As there are additional requirements for a financial asset to be classified as measured at amortized costs or FVOCI under K-IFRS 1109 compared to the existing guidance in K-IFRS 1039, the adoption of K-IFRS 1109 would potentially increase the proportion of financial assets that are measured at FVTPL, increasing volatility in the Group's profit or loss.

The criteria for classification and measurement of financial assets under K-IFRS 1109 are as follows:

- A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated as at FVTPL: 1) the asset is held within a business model whose objective is to hold assets to collect contractual cash flows; and 2) the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

- A financial asset is measured at FVOCI if it meets both of the following conditions and is not designated as at FVTPL: 1) the asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and 2) the contractual terms of the financial asset give rise on specified dates to cash flow that are solely payments of principal and interest on the principal amount outstanding.

- On initial recognition of equity investment that is not held for trading, the Group may irrevocably elect to present subsequent changes in fair value in OCI, and will not reclassify (recycle) the those items in OCI to profit or loss subsequently.

- A financial asset is measured at FVTPL if the contractual terms of the financial asset give rise to specified dates to cash flows that are not solely payments of principal and interest on the principal amount outstanding, the debt instrument is held within a business model whose objective is to sell the asset, or the equity instruments that are not elected to be designated as measured at FVOCI.

## 3. Significant Accounting Policies, Continued

### (1) New Standards and Interpretations Not Yet Adopted, Continued

(i) K-IFRS 1109, 'Financial Instruments', continued

1) Classification and measurement of financial assets, continued

As of September 30, 2017, the Group has loans and receivables amounting to ₩872,987 million, available-for-sale financial assets amounting to ₩92,078 million, financial assets at fair value through profit or loss amounting to ₩2,273 million, and derivatives using hedge accounting to ₩17,423 million.

2) Classification and measurement of financial liabilities

Under K-IFRS 1109, the amount of change in the fair value attributable to the changes in the credit risk of the financial liabilities is presented in OCI, not recognized in profit or loss, and the OCI amount will not be reclassified (recycled) to profit or loss. However, if doing so creates or increase an accounting mismatch, the amount of change in the fair value is recognized in profit or loss.

As a portion of fair value change which was recognized in profit or loss under the existing standard, K-IFRS 1039, will be presented in OCI under K-IFRS 1109, profit or loss related to valuation of financial liabilities is likely to decrease.

3) Impairment: Financial assets and contract assets

K-IFRS 1109 replaces the 'incurred loss' model in the existing standard with a forward-looking 'expected credit loss' (ECL) model for debt instruments, lease receivables, contractual assets, loan commitments, financial guarantee contracts.

Under K-IFRS 1109, impairment losses are likely to be recognized earlier than using the incurred loss model under the existing guidance in K-IFRS 1039 as loss allowances will be measured on either of the 12-month or lifetime ECL based on the extent of increase in credit risk since inception as shown in the below table.

| Classification | | Loss allowances |
|---|---|---|
| Stage 1 | Credit risk has not increased significantly since the initial recognition | 12-month ECL: ECLs that resulted from possible default events within the 12 months after the reporting date |
| Stage 2 | Credit risk has increased significantly since the initial recognition | Lifetime ECL: ECL that resulted from all possible default events over the expected life of a financial instrument |
| Stage 3 | Credit-impaired | |

Under K-IFRS 1109, financial assets of which the credit was impaired at the initial recognition, cumulative changes in lifetime ECL since the initial recognition are recognized as loss allowances.

As of September 30, 2017, the Group has debt instruments measured at amortized cost amounting to ₩872,987 million (loans and receivables) and has no loss allowances.

## 3. Significant Accounting Policies, Continued

### (1) New Standards and Interpretations Not Yet Adopted, Continued

(i) K-IFRS 1109, 'Financial Instruments', continued

4) Hedge accounting

K-IFRS 1109 retains the mechanics of hedge accounting (fair value hedge, cash flow hedge, hedging on net investment in a foreign operation) which was defined in the existing guidance in K-IFRS 1109, but provides principle-based and less complex guidance in hedging which focuses on the risk management activities. More hedged items and hedging instruments would qualify for hedge accounting, more qualitative and forward-looking approach will be taken to assessing hedge effectiveness, and qualitative threshold (80~125%) is removed under K-IFRS 1109.

Certain transactions which were not qualified for hedge accounting under the existing standard will be likely to quality for hedge accounting under K-IFRS 1109, decreasing volatility in the Group's profits or loss.

When initially applying K-IFRS 1109, the Group may choose as its accounting policy to continue to apply the hedge accounting requirements of K-IFRS 1039.

(ii) K-IFRS 1115, 'Revenue from Contracts with Customers'

K-IFRS 1115, 'Revenue from Contracts from Customers', published on November 6, 2015, is effective for annual periods beginning on or after January 1, 2018, with earlier adoption permitted.

It replaces existing revenue recognition guidance, including K-IFRS 1018, 'Revenue', K-IFRS 1011, 'Construction Contracts', K-IFRS 2031, 'Revenue-Barter transactions involving advertising services', K-IFRS, '2113 Customer Loyalty Programs', K-IFRS 2115, 'Agreements for the construction of real estate', K-IFRS 2118, 'Transfers of assets from customers'.

Existing K-IFRS standards and interpretations including K-IFRS 1018 provide revenue recognition guidance by transaction types such as sales of goods, rendering of services, interest income, royalty income, dividend income and construction revenue; however, under the new standard, K-IFRS 1115, the five-step approach (Step 1: Identify the contract(s) with a customer, Step 2: Identify the performance obligations in the contract, Step 3: Determine the transaction price, Step 4: Allocate the transaction price to the performance obligations in the contract, Step 5: Recognize revenue when the entity satisfied a performance obligation) is applied for all types of contracts or agreements.

As of September 30, 2017, the Group has not started modifying of internal control process or changing the accounting system related to K-IFRS 1115. The Group is currently performing a detailed assessment of the impact resulting from the application of K-IFRS 1115 and plans to complete the assessment in advance of its effective date.

## 4. Operating Segments

(1) The Group's segments are classified at the business unit level at which the Group generates separately identifiable revenue and costs, and the related information is reported to the chief operating decision maker for the purpose of resource allocation and assessment of segment performance. The Group's operating segments, in accordance with K-IFRS 1108, are 'Electric power generation (thermal power)' and 'Other': the 'Other' segment represents the business unit that manages the Group's foreign operations and maintenance services.

Transactions that occur between the two segments are all based on arms-length transactions priced at market prices that would be applicable to an independent third-party. The accounting policies of the reportable segments are the same as the Group's accounting policies described in note 3.

(2) Sales, operating income and loss for the periods

(i) For the nine-month period ended September 30, 2017

*In millions of won*

| | | Electric power generation | Others | Adjustment | Total |
|---|---|---|---|---|---|
| Sales | ₩ | 3,351,301 | 21,259 | (900) | 3,371,660 |
| Operating income (loss) | | 339,244 | 4,261 | (944) | 342,561 |
| Income tax expense | | 68,090 | 76 | - | 68,166 |
| Profit for the period | | 182,394 | 4,328 | - | 186,722 |
| Depreciation and amortization | | 454,614 | 3,365 | - | 457,979 |
| Loss related associates and joint ventures | | (8,028) | - | - | (8,028) |

(ii) For the nine-month period ended September 30, 2016

*In millions of won*

| | | Electric power generation | Others | Adjustment | Total |
|---|---|---|---|---|---|
| Sales | ₩ | 2,967,541 | 14,667 | (900) | 2,981,308 |
| Operating income (loss) | | 415,864 | 5,951 | (274) | 421,541 |
| Income tax expense | | 84,168 | - | - | 84,168 |
| Profit for the period | | 287,034 | 6,574 | - | 293,608 |
| Depreciation and amortization | | 385,085 | 691 | - | 385,776 |
| Loss related associates and joint ventures | | (1,642) | - | - | (1,642) |

## 4. Operating Segments, Continued

(3) Total assets and total liabilities

(i) As of September 30, 2017

| *In millions of won* | | Electric power generation | Others | Adjustment | Total |
|---|---|---|---|---|---|
| Total assets | ₩ | 9,879,771 | 203,728 | - | 10,083,499 |
| Investments in associates and joint ventures | | 260,593 | - | - | 260,593 |
| Acquisition of non-current assets for the period | | 544,690 | 5,963 | - | 550,653 |
| Total liabilities | | 5,734,124 | 21,230 | - | 5,755,354 |

(ii) As of December 31, 2016

| *In millions of won* | | Electric power generation | Others | Adjustment | Total |
|---|---|---|---|---|---|
| Total assets | ₩ | 10,012,669 | 53,122 | - | 10,065,791 |
| Investments in associates and joint ventures | | 179,652 | - | - | 179,652 |
| Acquisition of non-current assets for the year | | 754,383 | 6,239 | - | 760,622 |
| Total liabilities | | 5,852,616 | 7,004 | - | 5,859,620 |

(4) The Group is primarily engaged in the generation and sales of electricity in the Republic of Korea.

Geographical information on revenue from external for the nine-month periods ended September 30, 2017 and 2016 and non-current assets as of September 30, 2017 and December 31, 2016 are as follows:

| | | Revenue from external customer | | Non-current assets | |
|---|---|---|---|---|---|
| *In millions of won* | | **September 30, 2017** | **September 30, 2016** | **September 30, 2017** | **December 31, 2016** |
| Domestic | ₩ | 3,350,401 | 2,966,641 | 8,664,504 | 8,623,222 |
| Australia | | 8,185 | 3,402 | 22,982 | 21,475 |
| Jordan | | 4,973 | 5,064 | 382 | 514 |
| Chile | | 8,101 | 6,201 | 76,228 | 617 |
| Total | ₩ | 3,371,660 | 2,981,308 | 8,764,096 | 8,645,828 |

(5) Information about major customers

For the nine-month periods ended September 30, 2017 and 2016, the Group recognized revenues of ₩3,339,354 million and ₩2,954,580 million, respectively, to KEPCO, which is the Group's largest customer.

## 5. Restricted Financial Instruments

Restricted financial instruments as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | September 30, 2017 | December 31, 2016 | Description |
|---|---|---|---|---|
| Cash and cash equivalents | ₩ | 75,721 | 57,541 | Collateral provided for borrowings |

## 6. Cash and Cash Equivalents

Cash and cash equivalents as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | September 30, 2017 | December 31, 2016 |
|---|---|---|---|
| Cash (including demand deposits) | ₩ | 156,543 | 98,967 |
| Cash equivalents | | 27,386 | 221,464 |
| | ₩ | 183,929 | 320,431 |

## 7. Categories of Financial Instruments

(1) Financial assets

Categories of financial assets as of September 30, 2017 and December 31, 2016 are as follows:

(i) As of September 30, 2017

| *In millions of won* | | Financial assets at fair value through profit or loss | Loans and receivables | Available-for-sale financial assets | Derivatives using hedge accounting | Total |
|---|---|---|---|---|---|---|
| Current financial assets: | | | | | | |
| Cash and cash equivalents | ₩ | - | 183,929 | - | - | 183,929 |
| Current financial assets | | | | | | |
| Financial instruments | | - | 158,056 | - | - | 158,056 |
| Derivative assets | | 568 | - | - | 17,423 | 17,991 |
| Loans | | - | 8,305 | - | - | 8,305 |
| Trade and other receivables | | - | 429,967 | - | - | 429,967 |
| | | 568 | 780,257 | - | 17,423 | 798,248 |
| Non-current financial assets: | | | | | | |
| Non-current financial assets | | | | | | |
| Available-for-sale financial assets | | - | - | 92,078 | - | 92,078 |
| Financial instruments | | - | 10,152 | - | - | 10,152 |
| Derivative assets | | 1,705 | - | - | - | 1,705 |
| Loans | | - | 60,479 | - | - | 60,479 |
| Non-current trade and other receivables | | - | 22,099 | - | - | 22,099 |
| | | 1,705 | 92,730 | 92,078 | - | 186,513 |
| | ₩ | 2,273 | 872,987 | 92,078 | 17,423 | 984,761 |

## 7. Categories of Financial Instruments, Continued

(1) Financial assets, continued

Categories of financial assets as of September 30, 2017 and December 31, 2016 are as follows, continued:

(ii) As of December 31, 2016

| *In millions of won* | | Financial assets at fair value through profit or loss | Loans and receivables | Available-for-sale financial assets | Derivative using hedge accounting | Total |
|---|---|---|---|---|---|---|
| Current financial assets: | | | | | | |
| Cash and cash equivalents | ₩ | - | 320,431 | - | - | 320,431 |
| Current financial assets | | | | | | |
| Derivative assets | | 1,424 | - | - | 12,305 | 13,729 |
| Loans | | - | 1,223 | - | - | 1,223 |
| Trade and other receivables | | - | 551,786 | - | - | 551,786 |
| | | 1,424 | 873,440 | - | 12,305 | 887,169 |
| Non-current financial assets: | | | | | | |
| Non-current financial assets | | | | | | |
| Available-for-sale financial assets | | - | - | 96,276 | - | 96,276 |
| Derivative assets | | 1,705 | - | - | 34,014 | 35,719 |
| Loans | | - | 13,777 | - | - | 13,777 |
| Non-current trade and other receivables | | - | 17,642 | - | - | 17,642 |
| | | 1,705 | 31,419 | 96,276 | 34,014 | 163,414 |
| | ₩ | 3,129 | 904,859 | 96,276 | 46,319 | 1,050,583 |

## 7. Categories of Financial Instruments, Continued

(2) Financial liabilities

Categories of financial liabilities as of September 30, 2017 and December 31, 2016 are as follows:

(i) As of September 30, 2017

| *In millions of won* | | Financial liabilities at fair value through profit or loss | Financial liabilities measured at amortized cost | Total |
|---|---|---|---|---|
| Current financial liabilities: | | | | |
| Trade and other payables | ₩ | - | 476,199 | 476,199 |
| Current financial liabilities | | | | |
| Borrowings | | - | 339 | 339 |
| Debentures | | - | 853,459 | 853,459 |
| Derivative liabilities | | 2 | - | 2 |
| | | 2 | 1,329,997 | 1,329,999 |
| Non-current financial liabilities: | | | | |
| Trade and other payables | | - | 21,804 | 21,804 |
| Non-current financial liabilities | | | | |
| Borrowings | | - | 291,568 | 291,568 |
| Debentures | | - | 3,623,594 | 3,623,594 |
| | | - | 3,936,966 | 3,936,966 |
| | ₩ | 2 | 5,266,963 | 5,266,965 |

(ii) As of December 31, 2016

| *In millions of won* | | Financial liabilities at fair value through profit or loss | Financial liabilities measured at amortized cost | Total |
|---|---|---|---|---|
| Current financial liabilities: | | | | |
| Trade and other payables | ₩ | - | 529,371 | 529,371 |
| Current financial liabilities | | | | |
| Borrowings | | - | 366 | 366 |
| Debentures | | - | 770,541 | 770,541 |
| | | - | 1,300,278 | 1,300,278 |
| Non-current financial liabilities: | | | | |
| Trade and other payables | | - | 19,629 | 19,629 |
| Non-current financial liabilities | | | | |
| Borrowings | | - | 191,985 | 191,985 |
| Debentures | | - | 3,815,358 | 3,815,358 |
| | | - | 4,026,972 | 4,026,972 |
| | ₩ | - | 5,327,250 | 5,327,250 |

## 7. Categories of Financial Instruments, Continued

(3) Finance income and costs

Finance income and costs on each category of financial instruments for the three-month and nine-month periods ended September 30, 2017 and 2016 are as follows:

*In millions of won*

| Type | Description | September 30, 2017 Three-month period ended | September 30, 2017 Nine-month period ended | September 30, 2016 Three-month period ended | September 30, 2016 Nine-month period ended |
|---|---|---|---|---|---|
| Cash and cash equivalents | Interest income | ₩ 154 | 1,026 | 661 | 1,758 |
| | Gain (loss) on foreign currency transaction and translation, net | (895) | 629 | (429) | (411) |
| Available-for-sale financial assets | Net change in the unrealized fair value of available-for-sale financial assets before tax | (11,960) | (4,395) | - | 393 |
| Financial instruments | Interest income | 848 | 1,497 | 156 | 1,945 |
| Loans | Interest income | 4,367 | 4,693 | 176 | 339 |
| | Gain (loss) on foreign currency transaction and translation, net | 316 | (1,124) | - | - |
| Trade and other receivables | Interest income | 184 | 580 | 125 | 435 |
| | Loss on foreign currency transaction and translation, net | (6) | (4) | (34) | (23) |
| Financial assets at FVTPL | Gain (loss) on valuation of derivative instruments, net | 230 | 568 | (76) | 54 |
| | Gain (loss) on transactions of derivative instruments, net | 1,076 | (1,771) | 626 | 3,105 |
| Derivatives using hedge accounting (assets) | Gain (loss) on valuation of derivative instruments, net (profit or loss) | 2,130 | (18,540) | (27,360) | (30,280) |
| | Gain on valuation of derivative instruments, net (equity, before tax) | 1,490 | 2,083 | 715 | 2,645 |
| | Loss on transactions of derivative instruments, net | - | (4,230) | - | - |
| Financial liabilities measured at amortized cost | Gain on foreign currency transaction and translation, net | 2,619 | 31,342 | 31,827 | 35,061 |
| | Interest expense of borrowings and debentures | (32,909) | (74,011) | (13,771) | (45,910) |
| | Other interest expense | (1,284) | (2,685) | (1,471) | (3,085) |
| Financial liabilities at FVTPL | Gain (loss) on valuation of derivative instruments, net | 150 | (2) | (448) | (463) |
| | Loss on transactions of derivative instruments, net | - | - | (1,981) | (4,387) |

## 8. Trade and Other Receivables

(1) Trade and other receivables as of September 30, 2017 and December 31, 2016 are as follows:

(i) As of September 30, 2017

| *In millions of won* | | Gross receivables | Allowance for doubtful accounts | Present value discount and other | Book value |
|---|---|---|---|---|---|
| Current assets: | | | | | |
| Trade receivables | ₩ | 322,017 | - | - | 322,017 |
| Other receivables | | 107,950 | - | - | 107,950 |
| | | 429,967 | - | - | 429,967 |
| Non-current assets: | | | | | |
| Other receivables | | 22,396 | - | (297) | 22,099 |
| | ₩ | 452,363 | - | (297) | 452,066 |

(ii) As of December 31, 2016

| *In millions of won* | | Gross receivables | Allowance for doubtful accounts | Present value discount and other | Book value |
|---|---|---|---|---|---|
| Current assets: | | | | | |
| Trade receivables | ₩ | 464,965 | - | - | 464,965 |
| Other receivables | | 86,860 | - | (39) | 86,821 |
| | | 551,825 | - | (39) | 551,786 |
| Non-current assets: | | | | | |
| Other receivables | | 17,938 | - | (296) | 17,642 |
| | ₩ | 569,763 | - | (335) | 569,428 |

(2) Details of other receivables as of September 30, 2017 and December 31, 2016 are as follows:

(i) As of September 30, 2017

| *In millions of won* | | Gross receivables | Allowance for doubtful accounts | Present value discount and other | Book value |
|---|---|---|---|---|---|
| Current assets: | | | | | |
| Non-trade receivables | ₩ | 9,938 | - | - | 9,938 |
| Accrued income | | 97,031 | - | - | 97,031 |
| Guarantee | | 685 | - | - | 685 |
| Financial lease receivables | | 296 | - | - | 296 |
| | | 107,950 | - | - | 107,950 |
| Non-current assets: | | | | | |
| Guarantee | | 21,080 | - | (297) | 20,783 |
| Financial lease receivables | | 1,316 | - | - | 1,316 |
| | | 22,396 | - | (297) | 22,099 |
| | ₩ | 130,346 | - | (297) | 130,049 |

## 8. Trade and Other Receivables, Continued

(2) Details of other receivables as of September 30, 2017 and December 31, 2016 are as follows, continued:

(ii) As of December 31, 2016

| *In millions of won* | | Gross receivables | Allowance for doubtful accounts | Present value discount and other | Book value |
|---|---|---|---|---|---|
| Current assets: | | | | | |
| Non-trade receivables | ₩ | 11,486 | - | - | 11,486 |
| Accrued income | | 68,607 | - | - | 68,607 |
| Guarantee | | 5,885 | - | (39) | 5,846 |
| Financial lease receivables | | 882 | - | - | 882 |
| | | 86,860 | - | (39) | 86,821 |
| Non-current assets: | | | | | |
| Guarantee | | 17,108 | - | (296) | 16,812 |
| Financial lease receivables | | 830 | - | - | 830 |
| | | 17,938 | - | (296) | 17,642 |
| | ₩ | 104,798 | - | (335) | 104,463 |

For electricity sales revenue, the average trade receivable credit term is 25 business days from the invoice date. Interest is charged on trade receivables after 25 business days from the invoice date based on interest rate of overdue open market loan.

(3) There are no trade and other receivables which are overdue or impaired as of September 30, 2017 and December 31, 2016.

## 9. Available-for-Sale Financial Assets

(1) Changes in available-for-sale financial assets for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows:

(i) For the nine-month period ended September 30, 2017

| *In millions of won* | | Beginning balance | Valuation | Other | Ending Balance |
|---|---|---|---|---|---|
| Listed equity securities | ₩ | 71,840 | (4,000) | - | 67,840 |
| Unlisted equity securities | | 24,436 | (395) | 197 | 24,238 |
| | ₩ | 96,276 | (4,395) | 197 | 92,078 |

(ii) For the year ended December 31, 2016

| *In millions of won* | | Beginning balance | Valuation | Impairment | Other(*) | Ending Balance |
|---|---|---|---|---|---|---|
| Listed equity securities | ₩ | - | (8,693) | - | 80,533 | 71,840 |
| Unlisted equity securities | | 16,620 | 3,644 | (1,963) | 6,135 | 24,436 |
| | ₩ | 16,620 | (5,049) | (1,963) | 86,668 | 96,276 |

(*) Other amount of listed equity securities includes investment in kind made by KEPCO. (note 26)

## 9. Available-for-Sale Financial Assets, Continued

(2) Available-for-sale financial assets as of September 30, 2017 and December 31, 2016 are as follows:

(i) As of September 30, 2017

| *In millions of won except share information and ownership* | Shares | Ownership (%) | | Acquisition cost | Book value | Fair value |
|---|---|---|---|---|---|---|
| Listed securities: | | | | | | |
| PT. Bayan Resources TBK | 133,333,340 | 4.00 | ₩ | 80,533 | 67,840 | 67,840 |
| Unlisted securities: | | | | | | |
| Korea Power Exchange(*1) | - | 7.14 | | 9,131 | 16,060 | 16,060 |
| KEPCO-Uhde inc.(*2,3) | 103,230 | 2.40 | | 516 | 14 | 14 |
| PT. Kedap Sayaaq(*2) | 671 | 10.00 | | 18,540 | - | - |
| DS POWER Co., Ltd.(*2,4) | 580,000 | 2.34 | | 2,900 | 1,439 | 1,439 |
| HeeMang Sunlight Power Co., Ltd.(*2) | 78,600 | 8.33 | | 393 | 393 | 393 |
| KEPCO Bylong Australia Pty., Ltd.(*2) | - | 2.00 | | 6,135 | 6,332 | 6,332 |
| | | | ₩ | 118,148 | 92,078 | 92,078 |

(*1) The fair value of non-marketable available-for-sale financial assets is determined using the valuation results in which weighted average borrowing rates of interest of evaluated companies are used as a discount rate.
(*2) Book and fair values of unlisted equity securities held by the Group were measured at cost as a quoted market price does not exist in an active market and its fair value cannot be measured reliably.
(*3) It was determined that there is objective evidence of impairment due to prolonged operating losses. As a result, the Group recognized ₩502 million as impairment loss during 2016.
(*4) It was determined that there is objective evidence of impairment due to significant decline in fair value below cost. As a result, the Group recognized ₩1,461 million as impairment loss during 2016.

## 9. Available-for-Sale Financial Assets, Continued

(2) Available-for-sale financial assets as of September 30, 2017 and December 31, 2016 are as follows, continued:

(ii) As of December 31, 2016

| *In millions of won except share information and ownership* | Shares | Ownership (%) | | Acquisition cost | Book value | Fair value |
|---|---|---|---|---|---|---|
| Listed securities: | | | | | | |
| PT. Bayan Resources TBK | 133,333,340 | 4.00 | ₩ | 80,533 | 71,840 | 71,840 |
| Unlisted securities: | | | | | | |
| Korea Power Exchange(*1) | - | 7.14 | | 9,131 | 16,455 | 16,455 |
| KEPCO-Uhde inc.(*2,3) | 103,230 | 2.40 | | 516 | 14 | 14 |
| PT. Kedap Sayaaq(*2) | 671 | 10.00 | | 18,540 | - | - |
| DS POWER Co., Ltd.(*2,4) | 580,000 | 2.34 | | 2,900 | 1,439 | 1,439 |
| HeeMang Sunlight Power Co., Ltd.(*2) | 78,600 | 8.33 | | 393 | 393 | 393 |
| KEPCO Bylong Australia Pty., Ltd.(*2) | - | 2.00 | | 6,135 | 6,135 | 6,135 |
| | | | ₩ | 118,148 | 96,276 | 96,276 |

(*1) The fair value of non-marketable available-for-sale financial assets is determined using the valuation results in which weighted average borrowing rates of interest of evaluated companies are used as a discount rate.
(*2) Book and fair values of unlisted equity securities held by the Group were measured at cost as a quoted market price does not exist in an active market and its fair value cannot be measured reliably.
(*3) It was determined that there is objective evidence of impairment due to prolonged operating losses. In 2016, the Group recognized ₩502 million as impairment loss.
(*4) It was determined that there is objective evidence of impairment due to significant decline in fair value below costs. In 2016, the Group recognized ₩1,461 million as impairment loss.

## 10. Derivatives

(1) Derivatives as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | **September 30, 2017** | | **December 31, 2016** | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Derivative Assets: | | | | | |
| Currency forward | ₩ | 568 | - | 1,424 | - |
| Currency swap | | 17,423 | - | 12,305 | 34,014 |
| Others(*) | | - | 1,705 | - | 1,705 |
| | ₩ | 17,991 | 1,705 | 13,729 | 35,719 |
| Derivative Liabilities: | | | | | |
| Currency forward | ₩ | 2 | - | - | - |

(*) As described in the note 39, this amount represents the fair value of the obligation to sell the shares of the DS Power Co., Ltd.

## 10. Derivatives, Continued

(2) Currency swap contracts as of September 30, 2017 are as follows:

| *In millions of won, in thousands of USD* | | | Contract amounts | | Contract interest rate | | |
|---|---|---|---|---|---|---|---|
| Type | Counterparty | Period | Pay (KRW) | Receive (USD) | Pay (%) | Receive (%) | Contract currency |
| CF Hedge | Standard Chartered | 2013.02.05~2018.02.05 | 81,187 | 75,000 | 2.65 | 1.88 | 1,082.50 |
| | Credit Agricole | 2013.02.05~2018.02.05 | 81,187 | 75,000 | 2.65 | 1.88 | 1,082.50 |
| | Deutsche Bank | 2013.02.05~2018.02.05 | 81,187 | 75,000 | 2.65 | 1.88 | 1,082.50 |
| | Citibank | 2013.02.05~2018.02.05 | 81,187 | 75,000 | 2.65 | 1.88 | 1,082.50 |

(3) Currency forward contracts as of September 30, 2017 are as follows:

| *In millions of won, in thousands of USD* | | | | Contract amounts | | |
|---|---|---|---|---|---|---|
| Type | Counterparty | Contract date | Maturity date | Pay | Receive | Contract currency |
| Trading | Mizuho Bank | 2017.09.18 | 2017.10.11 | KRW 17,477 | USD 15,500 | 1,127.57 |
| | Standard Chartered | 2017.09.25 | 2017.10.11 | KRW 11,293 | USD 10,000 | 1,129.29 |
| | Credit Agricole | 2017.09.27 | 2017.10.11 | KRW 3,987 | USD 3,500 | 1,139.01 |
| | Standard Chartered | 2017.09.28 | 2017.10.16 | KRW 12,616 | USD 11,000 | 1,146.89 |
| | Nova Scotia | 2017.09.29 | 2017.10.23 | KRW 14,320 | USD 12,500 | 1,145.60 |
| | Standard Chartered | 2017.05.30 | 2017.11.15 | KRW 2,244 | USD 2,000 | 1,121.90 |
| | Standard Chartered | 2017.02.02 | 2017.11.15 | KRW 3,436 | USD 3,000 | 1,145.20 |
| | Societe Generale | 2017.07.04 | 2017.11.15 | KRW 3,438 | USD 3,000 | 1,146.14 |
| | Societe Generale | 2017.07.04 | 2017.12.15 | USD 4,500 | KRW 5,162 | 1,147.00 |

(4) The gain (loss) on valuation and transaction of derivatives for the three-month and nine-month periods ended September 30, 2017 and 2016 are as follows:

| *In millions of won* | | Net income effect of valuation gain (loss) | | | | Net income effect of transaction gain (loss) | | | | Accumulated other comprehensive income | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | | **September 30, 2017** | | **September 30, 2016** | | **September 30, 2017** | | **September 30, 2016** | | **September 30, 2017** | | **September 30, 2016** | |
| | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| Currency forward | ₩ | 380 | 566 | (524) | (409) | 1,076 | (1,771) | (1,355) | (1,282) | - | - | - | - |
| Currency swap(*) | | 2,130 | (18,540) | (27,360) | (30,280) | - | (4,230) | - | - | 1,490 | 2,083 | 715 | 2,645 |
| | ₩ | 2,510 | (17,974) | (27,884) | (30,689) | 1,076 | (6,001) | (1,355) | (1,282) | 1,490 | 2,083 | 715 | 2,645 |

(*) The loss on valuation of derivative instruments using cash flow hedge accounting is recognized as accumulated other comprehensive loss amounting to ₩85 million, net of tax as of September 30, 2017.

## 11. Loans

Loans as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | **September 30, 2017** | | **December 31, 2016** | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Student loans(*1) | ₩ | 1,989 | 12,833 | 608 | 12,654 |
| Present value discount account | | (49) | (2,215) | (68) | (68) |
| | | 1,940 | 10,618 | 540 | 12,586 |
| Loans to related company | | 5,775 | 49,521 | 683 | - |
| Mortgage loans(*2) | | 590 | 340 | - | 1,170 |
| Employee loans - other | | - | - | - | 21 |
| | ₩ | 8,305 | 60,479 | 1,223 | 13,777 |

(*1) The Group provides loans to employees without interest for the purpose of educational expenses for their children. The loans are paid back from appropriate portions of quarterly bonuses.
(*2) The Group provided housing loans to employees for their relocation. The loans have a 4-year maturity and are to be repaid in full on that date.

## 12. Financial instruments

Financial instruments as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | **September 30, 2017** | | **December 31, 2016** | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| CP | ₩ | 158,056 | 9,751 | - | - |
| RP | | - | 401 | - | - |
| | ₩ | 158,056 | 10,152 | - | - |

## 13. Inventories

Inventories as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | **September 30, 2017** | | | **December 31, 2016** | | |
|---|---|---|---|---|---|---|---|
| | | Acquisition cost | Allowance for valuation | Book Value | Acquisition cost | Allowance for valuation | Book Value |
| Materials | ₩ | 119,510 | - | 119,510 | 58,783 | - | 58,783 |
| Supplies | | 35,386 | - | 35,386 | 36,000 | - | 36,000 |
| Goods in transit | | 102,774 | - | 102,774 | 148,382 | - | 148,382 |
| Others | | 3,403 | - | 3,403 | 3,258 | - | 3,258 |
| | ₩ | 261,073 | - | 261,073 | 246,423 | - | 246,423 |

## 14. Financial Lease Receivables

(1) Lease contracts

The Group provides finance lease of machinery and equipment. Lease payments are presented in won and lease term is 7 years.

(2) Financial lease receivables as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | **September 30, 2017** | | **December 31, 2016** | |
|---|---|---|---|---|---|
| | | Minimum lease payment | Present Value of minimum lease payments | Minimum lease payment | Present Value of minimum lease payments |
| Less than 1 year | ₩ | 335 | 296 | 908 | 882 |
| 1 ~ 5 years | | 1,330 | 1,316 | 854 | 830 |
| | ₩ | 1,665 | 1,612 | 1,762 | 1,712 |

(3) There are no financial lease receivables which are overdue or impaired as of September 30, 2017.

## 15. Non-financial Assets

Non-financial assets as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | **September 30, 2017** | | **December 31, 2016** | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Advanced payments | ₩ | 38,568 | 8,928 | 13,893 | 9,337 |
| Prepaid expenses | | 20,254 | 2,270 | 38,709 | 228 |
| Others | | 5,123 | 2,528 | 70,355 | 4,257 |
| | ₩ | 63,945 | 13,726 | 122,957 | 13,822 |

## 16. Investments in Subsidiaries

(1) Investments in subsidiaries as of September 30, 2017 and December 31, 2016 are as follows:

| Company | Key operating activities | Location | Rate of ownership or voting right | |
|---|---|---|---|---|
| | | | **September 30, 2017** | **December 31, 2016** |
| KOSPO Australia Pty., Ltd. | Mining investment | Australia | 100% | 100% |
| KOSPO-Jordan LLC. | Power generation | Jordan | 100% | 100% |
| KOSPO Chile SpA | Foreign investment | Chile | 100% | 100% |
| KOSPO Bylong Pty., Ltd.(*1) | Mining investment | Australia | 100% | 100% |
| KOSPO Power Services Limitada. | Power generation | Chile | 65% | 65% |
| KOSPO Youngnam Power Co., Ltd.(*2) | Power generation | Republic of Korea | 50% | 50% |

(*1) Ratio of ownership is ratio of common stock which except for preferred stock which have no voting rights.
(*2) The Company holds 50% plus one of the outstanding shares and can appoint more than half of directors to the board of directors of the entity according to the shareholders agreement.

## 16. Investments in Subsidiaries, Continued

(2) Summarized financial information of subsidiaries as of September 30, 2017 and December 31, 2016 are as follows:

(i) As of and for the nine-month period ended September 30, 2017

*In millions of won*

| Company | | Assets | Liabilities | Sales | Net profit (loss) |
|---|---|---|---|---|---|
| KOSPO Australia Pty., Ltd. | ₩ | 34,498 | 4,549 | 8,185 | (125) |
| KOSPO-Jordan LLC. | | 25,546 | 15,019 | 4,973 | 257 |
| KOSPO Chile SpA | | 134,428 | 49,945 | - | (1,246) |
| KOSPO Bylong Pty., Ltd. | | 6,332 | - | - | - |
| KOSPO Power Services Limitada. | | 6,236 | 2,303 | 8,101 | 821 |
| KOSPO Youngnam Power Co., Ltd. | | 395,011 | 316,865 | - | (543) |

(ii) As of and for the year ended December 31, 2016

*In millions of won*

| Company | | Assets | Liabilities | Sales | Net profit (loss) |
|---|---|---|---|---|---|
| KOSPO Australia Pty., Ltd. | ₩ | 25,625 | 10 | 5,357 | 4,033 |
| KOSPO-Jordan LLC. | | 11,524 | 687 | 7,321 | 317 |
| KOSPO Chile SpA | | 6,656 | 4,787 | - | 125 |
| KOSPO Bylong Pty., Ltd. | | 6,135 | - | - | - |
| KOSPO Power Services Limitada. | | 4,385 | 1,262 | 7,300 | 2,963 |
| KOSPO Youngnam Power Co., Ltd. | | 284,368 | 205,680 | - | (931) |

(3) Significant restrictions on its abilities to subsidiary are as follows:

| Company | Nature and extent of any significant restrictions |
|---|---|
| KOSPO Youngnam Power Co., Ltd. | Principals on subordinated dividends can only be paid to shareholders when all conditions of a loan agreement are satisfied or the prior written consent of a financial institution is obtained. And without prior written consent of a financial institution, it is not allowed to transfer all or part of the shares which holds. |

## 16. Investments in Subsidiaries, Continued

(4) Details of non-controlling interest for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows:

(i) As of September 30, 2017

*In millions of won*

| Description | | KOSPO Youngnam Power Co., Ltd. | KOSPO Power Services Limitada. | KOSPO Bylong Pty., Ltd.(*) |
|---|---|---|---|---|
| Current assets | ₩ | 81,389 | 5,644 | - |
| Non-current assets | | 313,622 | 592 | 6,332 |
| Current liabilities | | (26,317) | (2,161) | - |
| Non-current liabilities | | (290,548) | (142) | - |
| Net assets | | 78,146 | 3,933 | 6,332 |
| Ownership of non-controlling interest | | 50.00% | 35.00% | 99.99% |
| Book value of non-controlling interest | | 39,073 | 1,376 | 6,099 |
| Sales | | - | 8,101 | - |
| Profit for the period | | (543) | 821 | - |
| Ownership of non-controlling interest | | 50.00% | 35.00% | 99.99% |
| Profit attributable to non-controlling interests | | (271) | 287 | - |
| Cash flows from operating activities | | 6,582 | (3,047) | - |
| Cash flows from investing activities | | (88,457) | 1,541 | - |
| Cash flows from financing activities | | 100,000 | - | - |
| Net decrease in cash and cash equivalents | | 18,125 | (1,506) | - |

(*) The above is ownership of non-controlling interest and related information. It is based on the ratio of ownership including preferred stock about KOSPO Bylong Pty., Ltd.

## 16. Investments in Subsidiaries, Continued

(4) Details of non-controlling interest for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows, continued:

(ii) As of December 31, 2016

*In millions of won*

| Description | | KOSPO Youngnam Power Co., Ltd. | KOSPO Power Services Limitada. | KOSPO Bylong Pty., Ltd.(*) |
|---|---|---|---|---|
| Current assets | ₩ | 73,959 | 2,183 | - |
| Non-current assets | | 210,409 | 2,202 | 6,135 |
| Current liabilities | | (15,399) | (1,262) | - |
| Non-current liabilities | | (190,281) | - | - |
| Net assets | | 78,688 | 3,123 | 6,135 |
| Ownership of non-controlling interest | | 50.00% | 35.00% | 99.99% |
| Book value of non-controlling interest | | 39,344 | 1,093 | 6,099 |
| Sales | | - | 7,300 | - |
| Profit for the period | | (931) | 2,963 | - |
| Ownership of non-controlling interest | | 50.00% | 35.00% | 99.99% |
| Profit attributable to non-controlling interests | | (465) | 1,037 | - |
| Cash flows from operating activities | | (33,767) | 3,732 | - |
| Cash flows from investing activities | | (172,441) | (2,147) | - |
| Cash flows from financing activities | | 218,616 | 6,416 | - |
| Net increase in cash and cash equivalents | | 12,408 | 8,001 | - |

(*) The above is ownership of non-controlling interest and related information. It is based on the ratio of ownership including preferred stock about KOSPO Bylong Pty., Ltd.

## 17. Investments in Associates and Joint Ventures

(1) Investments in associates and joint ventures as of September 30, 2017 and December 31, 2016 are as follows:

(i) As of September 30, 2017

*In millions of won*

| Company | Major operation | Location | September 30, 2017 | | |
|---|---|---|---|---|---|
| | | | Owner-ship | Acquisition cost | Book Value |
| Associates | | | | | |
| Taebaek Wind power Co., Ltd. | Power generation | Republic of Korea | 25.0% | ₩ 3,810 | 4,930 |
| TaebackGuinemi Wind Power Co., Ltd. | Power generation | Republic of Korea | 25.0% | 3,420 | 3,099 |
| PyeongChang Wind Power Co., Ltd. | Power generation | Republic of Korea | 25.0% | 3,875 | 3,831 |
| Daeryun Power Co., Ltd.(*1,6) | Power generation | Republic of Korea | 13.1% | 25,477 | 25,983 |
| Changjuk Wind Power Co., Ltd. | Power generation | Republic of Korea | 30.0% | 3,801 | 7,117 |
| KNH Solar Co., Ltd. | Power generation | Republic of Korea | 27.0% | 1,296 | 2,185 |
| Korea Offshore Wind Power Co., Ltd.(*2) | Power generation | Republic of Korea | 12.5% | 19,450 | 16,801 |
| Hadong Mineral Fiber Co., Ltd. (*1) | Recycling fly ashes | Republic of Korea | 8.3% | 50 | 12 |
| Jeongam Wind Power Co., Ltd. | Power generation | Republic of Korea | 40.0% | 5,580 | 3,816 |
| Korea Power Engineering Service Co., Ltd. | Construction | Republic of Korea | 29.0% | 290 | 3,800 |
| Naepo Green Energy Co., Ltd. | Power generation | Republic of Korea | 25.0% | 29,200 | 24,489 |
| Samcheok Eco Materials Co., Ltd.(*3) | Recycling fly ashes | Republic of Korea | 2.4% | 686 | - |
| Solar School Plant Co., Ltd.(*2) | Power generation | Republic of Korea | 8.3% | 16,650 | 16,715 |
| KEPCO Energy Solution Co., Ltd.(*2) | Energy service | Republic of Korea | 8.3% | 25,000 | 25,080 |
| | | | | ₩ 138,585 | 137,858 |
| Joint ventures | | | | | |
| Daegu Green Power Co., Ltd. | Power generation | Republic of Korea | 29.0% | 46,226 | 44,100 |
| Daejung Offshore Wind Power Co., Ltd. | Power generation | Republic of Korea | 49.9% | 5,190 | 3,049 |
| Kelar S.A.(*4) | Power generation | Chile | 65.0% | 78,060 | 71,132 |
| Daehan Wind Power PSC(*5) | Power generation | Jordan | 50.0% | 285 | - |
| Chester Solar IV SpA(*4) | Power generation | Chile | 81.8% | 1,675 | 1,778 |
| Chester Solar V SpA(*4) | Power generation | Chile | 81.8% | 526 | 553 |
| Diego de Almagro Solar SpA(*4) | Power generation | Chile | 81.8% | 1,987 | 2,123 |
| | | | | ₩ 133,949 | 122,735 |
| | | | | ₩ 272,534 | 260,593 |

## 17. Investments in Associates and Joint Ventures, Continued

(1) Investments in associates and joint ventures as of September 30, 2017 and December 31, 2016 are as follows, continued:

(i) As of September 30, 2017, continued

(*1) The Group holds less than 20% of the equity shares of Daeryun Power Co., Ltd. and Hadong Mineral Fiber Co., Ltd.. However, the Group can exercise significant influence by virtue of its contractual right to appoint a director to the board of directors of the entity.
(*2) The Company holds less than 20% of the equity shares of Korea Offshore Wind Power Co., Ltd., Solar School Plant Co., Ltd. and KEPCO Energy Solution Co., Ltd.. However, based on the total of ownership of the Company and an affiliated entity in the KEPCO Group, the KEPCO Group holds more than 20% of the equtiy shares of the entity and exercises significant influence.
(*3) The Group's effective percentage of ownership excluding the redeemable convertible preferred stock shares is 25.5%.
(*4) According to the shareholders' agreement, all critical financial and operating decisions must be agreed to by all ownership parties. For these reasons, the entities are classified as joint ventures.
(*5) The entity is classified as a joint venture as all critical financial and operating decisions must be agreed to by all ownership parties according to the joint development agreement.
(*6) The effective percentage of ownership is 19.5% considering stock purchase options.

## 17. Investments in Associates and Joint Ventures, Continued

(1) Investments in associates and joint ventures as of September 30, 2017 and December 31, 2016 are as follows, continued:

(ii) As of December 31, 2016

*In millions of won*

| Company | Major operation | Location | December 31, 2016 | | |
|---|---|---|---|---|---|
| | | | Owner-ship | Acquisition cost | Book Value |
| Associates | | | | | |
| Taebaek Wind power Co., Ltd. | Power generation | Republic of Korea | 25.0% | ₩ 3,810 | 4,750 |
| TaebackGuinemi Wind Power Co., Ltd. | Power generation | Republic of Korea | 25.0% | 3,420 | 3,131 |
| PyeongChang Wind Power Co., Ltd. | Power generation | Republic of Korea | 25.0% | 3,875 | 3,383 |
| Daeryun Power Co., Ltd.(*1,6) | Power generation | Republic of Korea | 13.1% | 25,477 | 29,873 |
| Changjuk Wind Power Co., Ltd. | Power generation | Republic of Korea | 30.0% | 3,801 | 6,930 |
| KNH Solar Co., Ltd. | Power generation | Republic of Korea | 27.0% | 1,296 | 2,073 |
| Korea Offshore Wind Power Co., Ltd.(*2) | Power generation | Republic of Korea | 12.5% | 6,450 | 4,473 |
| Hadong Mineral Fiber Co., Ltd. | Recycling fly ashes | Republic of Korea | 8.3% | 50 | - |
| Jeongam Wind Power Co., Ltd. | Power generation | Republic of Korea | 40.0% | 5,580 | 4,000 |
| Korea Power Engineering Service Co., Ltd. | Construction | Republic of Korea | 29.0% | 290 | 2,809 |
| KS Solar Co., Ltd. | Power generation | Republic of Korea | 19.0% | 637 | 604 |
| Naepo Green Energy Co., Ltd. | Power generation | Republic of Korea | 25.0% | 29,200 | 25,438 |
| Samcheok Eco Materials Co., Ltd.(*3) | Recycling fly ashes | Republic of Korea | 2.4% | 686 | - |
| Solar School Plant Co., Ltd.(*2) | Power generation | Republic of Korea | 8.3% | 16,650 | 16,652 |
| KEPCO Energy Solution Co., Ltd.(*2) | Energy service | Republic of Korea | 8.3% | 25,000 | 24,975 |
| | | | | ₩ 126,222 | 129,091 |
| Joint ventures | | | | | |
| Daegu Green Power Co., Ltd. | Power generation | Republic of Korea | 29.0% | 46,226 | 47,528 |
| Daejung Offshore Wind Power Co., Ltd. | Power generation | Republic of Korea | 49.9% | 4,990 | 3,015 |
| Kelar S.A.(*4) | Power generation | Chile | 65.0% | 4,180 | - |
| Daehan Wind Power PSC(*5) | Power generation | Jordan | 50.0% | 285 | 18 |
| | | | | ₩ 55,681 | 50,561 |
| | | | | ₩ 181,903 | 179,652 |

## 17. Investments in Associates and Joint Ventures, Continued

(1) Investments in associates and joint ventures as of September 30, 2017 and December 31, 2016 are as follows, continued:

(ii) As of December 31, 2016

(*1) The Group holds less than 20% of the equity shares of Daeryun Power Co., Ltd. and Hadong Mineral Fiber Co., Ltd.. However, the Group can exercise significant influence by virtue of its contractual right to appoint a director to the board of directors of the entity.
(*2) The Company holds less than 20% of the equity shares of Korea Offshore Wind Power Co., Ltd., Solar School Plant Co., Ltd. and KEPCO Energy Solution Co., Ltd.. However, based on the total of ownership of the Company and an affiliated entity in the KEPCO Group, the KEPCO Group holds more than 20% of the equtiy shares of the entity and exercises significant influence.
(*3) The Group's effective percentage of ownership excluding the redeemable convertible preferred stock shares is 25.5%.
(*4) According to the shareholders' agreement, all critical financial and operating decisions must be agreed to by all ownership parties. For these reasons, the entities are classified as joint ventures.
(*5) The entity is classified as a joint venture as all critical financial and operating decisions must be agreed to by all ownership parties according to the joint development agreement.
(*6) The effective percentage of ownership is 19.5% considering stock purchase options.

## 17. Investments in Associates and Joint Ventures, Continued

(2) Changes in investments in associates and joint ventures for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows:

(i) For the nine-month period ended September 30, 2017

*In millions of won*

| Company | | Beginning balance | Acquisitions | Disposal | Equity profit (loss) | Changes in equity | Others | Ending balance |
|---|---|---|---|---|---|---|---|---|
| Associates | | | | | | | | |
| Taebaek Wind Power Co., Ltd. | ₩ | 4,750 | - | - | 180 | - | - | 4,930 |
| TaebackGuinemi Wind Power Co., Ltd. | | 3,131 | - | - | (32) | - | - | 3,099 |
| PyeongChang Wind Power Co., Ltd. | | 3,383 | - | - | 448 | - | - | 3,831 |
| Daeryun Power Co., Ltd. | | 29,873 | - | - | (3,890) | - | - | 25,983 |
| Changjuk Wind Power Co., Ltd. | | 6,930 | - | - | 298 | - | (111) | 7,117 |
| KNH Solar Co., Ltd. | | 2,073 | - | - | 112 | - | - | 2,185 |
| Korea Offshore Wind Power Co., Ltd. | | 4,473 | 13,000 | - | (485) | (187) | - | 16,801 |
| Hadong Mineral Fiber Co., Ltd. | | - | - | - | (20) | - | 32 | 12 |
| Jeongam Wind Power Co., Ltd. | | 4,000 | - | - | (184) | - | - | 3,816 |
| Korea Power Engineering Service Co., Ltd. | | 2,809 | - | - | 1,167 | - | (176) | 3,800 |
| KS Solar Co., Ltd. | | 604 | - | (613) | - | 9 | - | - |
| Naepo Green Energy Co., Ltd. | | 25,438 | - | - | (949) | - | - | 24,489 |
| Samcheok Eco Materials Co., Ltd. | | - | - | - | - | - | - | - |
| Solar School Plant Co., Ltd. | | 16,652 | - | - | 63 | - | - | 16,715 |
| KEPCO Energy Solution Co., Ltd. | | 24,975 | - | - | 105 | - | - | 25,080 |
| | ₩ | 129,091 | 13,000 | (613) | (3,187) | (178) | (255) | 137,858 |
| Joint ventures | | | | | | | | |
| Daegu Green Power Co., Ltd. | | 47,528 | - | - | (3,428) | - | - | 44,100 |
| Daejung Offshore Wind Power Co., Ltd. | | 3,015 | 200 | - | (166) | - | - | 3,049 |
| Kelar S.A. | | - | 73,880 | - | (1,291) | (2,604) | 1,147 | 71,132 |
| Daehan Wind Power PSC | | 18 | - | - | (15) | (3) | - | - |
| Chester Solar IV SpA | | - | 1,674 | - | - | - | 104 | 1,778 |
| Chester Solar V SpA | | - | 526 | - | - | - | 27 | 553 |
| Diego de Almagro Solar SpA | | - | 1,987 | - | - | - | 136 | 2,123 |
| | ₩ | 50,561 | 78,267 | - | (4,900) | (2,607) | 1,414 | 122,735 |
| | ₩ | 179,652 | 91,267 | (613) | (8,087) | (2,785) | 1,159 | 260,593 |

## 17. Investments in Associates and Joint Ventures, Continued

(2) Changes in investments in associates and joint ventures for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows, continued:

(ii) For the year ended December 31, 2016

*In millions of won*

| Company | Beginning balance | Acquisitions | Disposal | Equity profit (loss) | Changes in equity | Others | Ending balance |
|---|---|---|---|---|---|---|---|
| Associates | | | | | | | |
| Daegu Green Power Co., Ltd.(*) ₩ | 80,267 | 3,347 | (34,421) | (1,814) | 148 | (47,527) | - |
| Taebaek Wind Power Co., Ltd. | 4,956 | - | - | (206) | - | - | 4,750 |
| TaebackGuinemi Wind Power Co., Ltd. | 2,587 | 570 | - | (26) | - | - | 3,131 |
| PyeongChang Wind Power Co., Ltd. | 3,402 | - | - | (19) | - | - | 3,383 |
| Jinan Jangsu Wind Power Co., Ltd. | 77 | - | (64) | (13) | - | - | - |
| Daeryun Power Co., Ltd. | 36,156 | - | - | (6,282) | - | (1) | 29,873 |
| Changjuk Wind Power Co., Ltd. | 6,143 | - | - | 977 | - | (190) | 6,930 |
| KNH Solar Co., Ltd. | 1,924 | - | - | 144 | 5 | - | 2,073 |
| Busan Solar Co., Ltd. | 925 | - | (887) | (38) | - | - | - |
| Korea Offshore Wind Power Co., Ltd. | 658 | 4,500 | - | (620) | (65) | - | 4,473 |
| Hadong Mineral Fiber Co., Ltd. | - | - | - | - | - | - | - |
| Jeongam Wind Power Co., Ltd. | 702 | 3,900 | - | (602) | - | - | 4,000 |
| Korea Power Engineering Service Co., Ltd. | 1,805 | - | - | 1,004 | - | - | 2,809 |
| KS Solar Co., Ltd. | 618 | - | - | (14) | - | - | 604 |
| Naepo Green Energy Co., Ltd. | 26,745 | - | - | (1,307) | - | - | 25,438 |
| Samcheok Eco Materials Co., Ltd. | - | - | - | - | - | - | - |
| Solar School Plant Co., Ltd. | - | 16,650 | - | 2 | - | - | 16,652 |
| KEPCO Energy Solution Co., Ltd. | - | 25,000 | - | (25) | - | - | 24,975 |
| | 166,965 | 53,967 | (35,372) | (8,839) | 88 | (47,718) | 129,091 |
| Joint ventures | | | | | | | |
| Daegu Green Power Co., Ltd.(*) | - | - | - | - | - | 47,528 | 47,528 |
| Daejung Offshore Wind Power Co., Ltd. | 3,352 | - | - | (337) | - | - | 3,015 |
| Kelar S.A. | - | - | - | - | - | - | - |
| Daehan Wind Power PSC | - | 285 | - | (261) | (6) | - | 18 |
| | 3,352 | 285 | - | (598) | (6) | 47,528 | 50,561 |
| ₩ | 170,317 | 54,252 | (35,372) | (9,437) | 82 | (190) | 179,652 |

(*) The entity is reclassified from associates to joint ventures since the terms of the shareholders' agreement had been amended.

## 17. Investments in Associates and Joint Ventures, Continued

(3) Summarized financial information of associates and joint ventures as of September 30, 2017 and December 31, 2016 are as follows:

(i) As of September 30, 2017

*In millions of won*

| Company | | Assets | Liabilities | Sales | Net profit (loss) |
|---|---|---|---|---|---|
| Associates | | | | | |
| Taebaek Wind Power Co., Ltd. | ₩ | 38,908 | 18,593 | 5,143 | 1,351 |
| TaebackGuinemi Wind Power Co., Ltd. | | 12,401 | 6 | - | (103) |
| PyeongChang Wind Power Co., Ltd. | | 77,200 | 61,386 | 8,829 | 2,306 |
| Daeryun Power Co., Ltd. | | 766,348 | 637,995 | 122,371 | (19,496) |
| Changjuk Wind Power Co., Ltd. | | 35,429 | 11,123 | 4,985 | 1,573 |
| KNH Solar Co., Ltd. | | 24,740 | 16,647 | 2,896 | 505 |
| Korea Offshore Wind Power Co., Ltd. | | 134,475 | 72 | - | (3,878) |
| Hadong Mineral Fiber Co., Ltd. | | 521 | 378 | - | (90) |
| Jeongam Wind Power Co., Ltd. | | 60,106 | 50,566 | - | (448) |
| Korea Power Engineering Service Co., Ltd. | | 15,193 | 2,085 | 16,981 | 4,255 |
| Naepo Green Energy Co., Ltd. | | 143,083 | 45,128 | 3,942 | (3,798) |
| Samcheok Eco Materials Co., Ltd. | | 23,718 | 176 | - | (348) |
| Solar School Plant Co., Ltd. | | 201,819 | 1,030 | 36 | 779 |
| KEPCO Energy Solution Co., Ltd. | | 301,693 | 732 | 2,194 | 1,261 |
| Joint ventures | | | | | |
| Daegu Green Power Co., Ltd. | | 598,680 | 521,080 | 187,183 | (11,822) |
| Daejung Offshore Wind Power Co., Ltd. | | 6,147 | 37 | - | (332) |
| Kelar S.A. | | 666,526 | 560,427 | 69,289 | 16,585 |
| Daehan Wind Power PSC | | 1,226 | 1,816 | - | (620) |
| Chester Solar IV SpA | | 2,174 | 92 | - | - |
| Chester Solar V SpA | | 687 | 37 | - | - |
| Diego de Almagro Solar SpA | | 2,595 | - | - | - |

(ii) As of December 31, 2016

*In millions of won*

| Company | | Assets | Liabilities | Sales | Net profit (loss) |
|---|---|---|---|---|---|
| Associates | | | | | |
| Taebaek Wind Power Co., Ltd. | ₩ | 43,162 | 24,162 | 5,741 | (2,796) |
| TaebackGuinemi Wind Power Co., Ltd. | | 12,523 | 1 | - | (106) |
| PyeongChang Wind Power Co., Ltd. | | 75,440 | 61,909 | 3,997 | (45) |
| Daeryun Power Co., Ltd. | | 793,283 | 644,930 | 249,558 | (32,291) |
| Changjuk Wind Power Co., Ltd. | | 37,878 | 15,162 | 5,782 | 1,739 |
| KNH Solar Co., Ltd. | | 25,878 | 18,199 | 4,006 | 638 |
| Korea Offshore Wind Power Co., Ltd. | | 37,826 | 2,048 | - | (4,960) |
| Hadong Mineral Fiber Co., Ltd. | | - | 20 | - | - |
| Jeongam Wind Power Co., Ltd. | | 13,199 | 3,199 | - | (1,496) |
| Korea Power Engineering Service Co., Ltd. | | 13,401 | 3,713 | 27,394 | 3,463 |
| KS Solar Co., Ltd. | | 27,213 | 24,035 | 4,152 | (79) |
| Naepo Green Energy Co., Ltd. | | 104,029 | 2,276 | 4,912 | (5,230) |
| Samcheok Eco Materials Co., Ltd. | | 24,143 | 254 | - | (1,945) |
| Solar School Plant Co., Ltd. | | 200,268 | 259 | 1 | 9 |
| KEPCO Energy Solution Co., Ltd. | | 299,933 | 233 | - | (300) |
| Joint ventures | | | | | |
| Daegu Green Power Co., Ltd. | | 636,438 | 547,017 | 265,621 | (3,981) |
| Daejung Offshore Wind Power Co., Ltd. | | 6,076 | 34 | - | (675) |
| Kelar S.A. | | 617,803 | 712,124 | - | (4,109) |
| Daehan Wind Power PSC | | 750 | 714 | - | (523) |

## 17. Investments in Associates and Joint Ventures, Continued

(4) Shareholders' agreements on investments in associates and joint ventures that may cause future economic costs or cash outflows are as follows:

| Company | Shareholders' agreements |
|---|---|
| Taebaek Wind Power Co., Ltd. | The Group has the obligation to buy the other shareholders' shares at fair value through a consultation process with all the shareholders involved about timing of acquisition, sizes, etc. by taking financial conditions, business situation and other various circumstances into consideration, in case the other shareholders want to sell their shares after the end of warranty period of the wind power equipment based on the equipment and material supply contract. |
| Pyeongchang Wind Power Co., Ltd. | In case non-controlling shareholders decide to dispose of their shares in Pyeongchang Wind Power Co., Ltd. after commercial operation of the power plant has started, the Group is obligated to acquire those shares at fair value. |
| Jeongam Wind Power Co., Ltd. | The Group is obligated to buy the other shareholders' shares at fair value, as each of the other shareholders exercise their put option to sell their shares after completing the construction of a power plant. |
| Daejung Offshore Wind Power Co., Ltd. | The Group has the obligation to buy the shares of Samsung Heavy Industries Co., Ltd., the other shareholder of Daejung Offshore Wind Power Co., Ltd., at fair value by evaluating the reliability and economic feasibility of equipment installed by Samsung Heavy Industries Co., Ltd. after the end of the warranty period of the wind power equipment based on the equipment and material supply contract. |
| Samcheok Eco Materials Co., Ltd. | The Group has the rights to purchase the stocks should preferred stockholders elect to sell their stocks on the expected sell date (3 years from preferred stock payment date) and is required to guarantee the promised yield when preferred stockholders sell their stocks. |

## 17. Investments in Associates and Joint Ventures, Continued

(5) Significant restrictions on its abilities to associates or joint ventures are as follows:

| Company | Nature and extent of any significant restrictions |
|---|---|
| Daegu Green Power Co., Ltd. | Principals on subordinated loans or dividends can only be paid when all conditions of the loan agreement are satisfied or prior written consent of financial institutions is obtained. Shares cannot be wholly or partially transferred without prior written consent of financial institutions is obtained. |
| Taebaek Wind Power Co., Ltd. | Financial institutions can reject or defer an approval with regard to the request for fund executions on subordinated loans of shareholders in order to pay senior loans based on the loan agreement. |
| Pyeongchang Wind Power Co., Ltd. | Principals on subordinated loans or dividends can only be paid to shareholders when all conditions of a loan agreement are satisfied or the prior written consent of a financial institution is obtained. |
| Daeryun Power Co., Ltd. | Principals on subordinated loans or dividends can only be paid to shareholders when all conditions of a loan agreement are satisfied or the prior written consent of a financial institution is obtained. |
| Changjuk Wind Power Co., Ltd. | Principals on subordinated loans or dividends can only be paid to shareholders when all conditions of a loan agreement are satisfied or the prior written consent of a financial institution is obtained. |
| KNH Solar Co., Ltd. | Principals on subordinated loans or dividends can only be paid to shareholders when the prior written consent of a financial institution is obtained. |

## 18. Property, Plant and Equipment

(1) Property, plant and equipment as of September 30, 2017 and December 31, 2016 are as follows:

(i) As of September 30, 2017

| *In millions of won* | | Acquisition cost | Government grants | Accumulated depreciation | Accumulated impairment loss | Book value |
|---|---|---|---|---|---|---|
| Land | ₩ | 1,053,076 | - | - | - | 1,053,076 |
| Buildings | | 1,491,548 | (394) | (478,857) | (853) | 1,011,444 |
| Structures | | 1,517,363 | - | (520,860) | (1,183) | 995,320 |
| Machinery | | 7,076,579 | (258) | (2,622,853) | - | 4,453,468 |
| Ships | | 3 | - | (1) | - | 2 |
| Vehicles | | 10,300 | (18) | (7,020) | - | 3,262 |
| Equipment | | 130,726 | (39) | (95,653) | - | 35,034 |
| Tools | | 22,335 | - | (17,075) | - | 5,260 |
| Others | | 1,409 | - | (446) | - | 963 |
| Construction-in-progress | | 705,971 | - | - | - | 705,971 |
| Finance lease assets | | 286,273 | - | (82,831) | - | 203,442 |
| | ₩ | 12,295,583 | (709) | (3,825,596) | (2,036) | 8,467,242 |

## 18. Property, Plant and Equipment, Continued

(1) Property, plant and equipment as of September 30, 2017 and December 31, 2016 are as follows, continued:

(ii) As of December 31, 2016

| *In millions of won* | | Acquisition cost | Government grants | Accumulated depreciation | Accumulated impairment loss | Book value |
|---|---|---|---|---|---|---|
| Land | ₩ | 1,038,443 | - | - | - | 1,038,443 |
| Buildings | | 1,314,120 | (100) | (437,262) | (853) | 875,905 |
| Structures | | 1,489,995 | - | (493,949) | (1,183) | 994,863 |
| Machinery | | 6,041,291 | (284) | (2,296,993) | - | 3,744,014 |
| Ships | | 3 | - | (1) | - | 2 |
| Vehicles | | 9,562 | - | (6,094) | - | 3,468 |
| Equipment | | 136,473 | (13) | (93,997) | - | 42,463 |
| Tools | | 18,466 | - | (15,786) | - | 2,680 |
| Others | | 1,409 | - | (376) | - | 1,033 |
| Construction-in-progress | | 1,513,197 | - | - | - | 1,513,197 |
| Finance lease assets | | 286,224 | - | (74,701) | - | 211,523 |
| | ₩ | 11,849,183 | (397) | (3,419,159) | (2,036) | 8,427,591 |

(2) Changes in property, plant and equipment for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows:

(i) For the nine-month period ended September 30, 2017

| *In millions of won* | | Beginning balance | Acquisition/ Capital expenditure | Disposal | Depreciation | Others(*) | Ending balance |
|---|---|---|---|---|---|---|---|
| Land | ₩ | 1,038,443 | - | - | - | 14,633 | 1,053,076 |
| Buildings | | 876,005 | 134 | - | (41,593) | 177,292 | 1,011,838 |
| (Government grants) | | (100) | (300) | - | 6 | - | (394) |
| Structures | | 994,863 | - | - | (35,494) | 35,951 | 995,320 |
| Machinery | | 3,744,298 | 16,471 | (3,437) | (360,091) | 1,056,485 | 4,453,726 |
| (Government grants) | | (284) | - | - | 26 | - | (258) |
| Ships | | 2 | - | - | - | - | 2 |
| Vehicles | | 3,468 | 44 | (18) | (966) | 752 | 3,280 |
| (Government grants) | | - | (19) | - | 1 | - | (18) |
| Equipment | | 42,476 | 1,307 | (4) | (14,371) | 5,665 | 35,073 |
| (Government grants) | | (13) | (43) | - | 17 | - | (39) |
| Tools | | 2,680 | 125 | - | (1,483) | 3,938 | 5,260 |
| Others | | 1,033 | - | - | (70) | - | 963 |
| Construction-in-progress | | 1,513,197 | 440,659 | - | - | (1,247,885) | 705,971 |
| Finance lease assets | | 211,523 | - | - | (8,081) | - | 203,442 |
| | ₩ | 8,427,591 | 458,378 | (3,459) | (462,099) | 46,831 | 8,467,242 |

(*) 'Others' primarily include capitalized retirement benefit expense, capitalized borrowing costs and others.

## 18. Property, Plant and Equipment, Continued

(2) Changes in property, plant and equipment for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows, continued:

(ii) For the year ended December 31, 2016

| *In millions of won* | | Beginning balance | Acquisition/ Capital expenditure | Disposal | Depreciation | Others(*) | Ending balance |
|---|---|---|---|---|---|---|---|
| Land | ₩ | 670,864 | - | (812) | - | 368,391 | 1,038,443 |
| Buildings | | 622,911 | 42 | (355) | (39,917) | 293,324 | 876,005 |
| (Government grants) | | (104) | - | - | 4 | - | (100) |
| Structures | | 811,221 | 4 | - | (47,350) | 230,988 | 994,863 |
| Machinery | | 2,688,583 | 66,114 | (14,932) | (403,074) | 1,407,607 | 3,744,298 |
| (Government grants) | | (321) | - | - | 37 | - | (284) |
| Ships | | 2 | - | - | - | - | 2 |
| Vehicles | | 1,738 | 276 | (85) | (944) | 2,483 | 3,468 |
| Equipment | | 46,695 | 1,965 | (1) | (18,387) | 12,204 | 42,476 |
| (Government grants) | | (149) | - | - | 136 | - | (13) |
| Tools | | 2,771 | 167 | (2) | (1,367) | 1,111 | 2,680 |
| Others | | 1,128 | - | - | (95) | - | 1,033 |
| Construction-in-progress | | 3,209,906 | 633,059 | (1,442) | - | (2,328,326) | 1,513,197 |
| Finance lease assets | | 102,673 | - | - | (9,039) | 117,889 | 211,523 |
| | ₩ | 8,157,918 | 701,627 | (17,629) | (519,996) | 105,671 | 8,427,591 |

(*) 'Others' primarily include capitalized retirement benefit expense, capitalized borrowing costs and others.

## 19. Intangible Assets

(1) Intangible assets as of September 30, 2017 and December 31, 2016 are as follows:

(i) As of September 30, 2017

| *In millions of won* | | Acquisition cost | Accumulated amortization | Accumulated impairment loss | Book value |
|---|---|---|---|---|---|
| Computer software | ₩ | 22,504 | (17,997) | - | 4,507 |
| Copyright, patent right and industrial property | | 71 | (66) | - | 5 |
| Mining right | | 15,030 | (4,700) | - | 10,330 |
| Development costs | | 25,911 | (24,176) | - | 1,735 |
| Usable and profitable donation assets | | 1,469 | (417) | - | 1,052 |
| Land use right | | 79 | (72) | - | 7 |
| Others | | 7,153 | (2,158) | (95) | 4,900 |
| | ₩ | 72,217 | (49,586) | (95) | 22,536 |

## 19. Intangible Assets, Continued

(1) Intangible assets as of September 30, 2017 and December 31, 2016 are as follows, continued:

(ii) As of December 31, 2016

| *In millions of won* | | Acquisition cost | Accumulated amortization | Accumulated impairment loss | Book value |
|---|---|---|---|---|---|
| Computer software | ₩ | 23,771 | (18,619) | - | 5,152 |
| Copyright, patent right and industrial property | | 71 | (64) | - | 7 |
| Mining right | | 13,096 | (1,876) | - | 11,220 |
| Development costs | | 25,602 | (23,307) | - | 2,295 |
| Usable and profitable donation assets | | 1,469 | (307) | - | 1,162 |
| Land use right | | 79 | (66) | - | 13 |
| Others | | 6,915 | (1,906) | (95) | 4,914 |
| | ₩ | 71,003 | (46,145) | (95) | 24,763 |

(2) Changes in intangible assets for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows:

(i) For the nine-month period ended September 30, 2017

| *In millions of won* | | Beginning balance | Acquisition/ Capital expenditure | Disposal | Amortization | Others | Ending balance |
|---|---|---|---|---|---|---|---|
| Computer software | ₩ | 5,152 | 11 | - | (2,860) | 2,204 | 4,507 |
| Copyright, patent right and industrial property | | 7 | - | - | (2) | - | 5 |
| Mining right | | 11,220 | 1,467 | - | (2,679) | 322 | 10,330 |
| Development costs | | 2,295 | - | - | (869) | 309 | 1,735 |
| Usable and profitable donation assets | | 1,163 | - | - | (111) | - | 1,052 |
| Land use right | | 12 | - | - | (5) | - | 7 |
| Others | | 4,914 | 226 | - | (250) | 10 | 4,900 |
| | ₩ | 24,763 | 1,704 | - | (6,776) | 2,845 | 22,536 |

(ii) For the year ended December 31, 2016

| *In millions of won* | | Beginning balance | Acquisition/ Capital expenditure | Disposal | Amortization | Others | Ending balance |
|---|---|---|---|---|---|---|---|
| Computer software | ₩ | 6,287 | 28 | - | (3,395) | 2,232 | 5,152 |
| Copyright, patent right and industrial property | | 11 | - | - | (4) | - | 7 |
| Mining right | | 7,196 | 4,242 | - | (416) | 198 | 11,220 |
| Development costs | | 4,604 | - | - | (3,262) | 953 | 2,295 |
| Usable and profitable donation assets | | 1,309 | - | - | (147) | - | 1,162 |
| Land use right | | 21 | - | - | (8) | - | 13 |
| Others | | 5,503 | - | (260) | (332) | 3 | 4,914 |
| | ₩ | 24,931 | 4,270 | (260) | (7,564) | 3,386 | 24,763 |

## 20. Trade and Other Payables

Trade and other payables as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | September 30, 2017 | | December 31, 2016 | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Trade payables | ₩ | 184,836 | - | 249,279 | - |
| Other payables | | 138,783 | 21,804 | 111,761 | 19,629 |
| Accrued expenses | | 22,798 | - | 39,914 | - |
| Other deposits | | 129,782 | - | 128,417 | - |
| | ₩ | 476,199 | 21,804 | 529,371 | 19,629 |

## 21. Borrowings and Debentures

(1) Details of borrowings and debentures as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | September 30, 2017 | December 31, 2016 |
|---|---|---|---|
| Current Liabilities: | | | |
| Current portion of long-term borrowings | ₩ | 339 | 366 |
| Current portion of debentures | | 854,010 | 770,850 |
| Less: discount on debentures | | (551) | (309) |
| | | 853,798 | 770,907 |
| Non-current Liabilities: | | | |
| Long-term borrowings | | 291,568 | 191,985 |
| Debentures | | 3,630,000 | 3,822,550 |
| Less: discount on debentures | | (6,406) | (7,192) |
| | | 3,915,162 | 4,007,343 |
| | ₩ | 4,768,960 | 4,778,250 |

(2) Repayment schedule of borrowings and debentures as of September 30, 2017 and December 31, 2016 are as follows:

(i) As of September 30, 2017

| *In millions of won* | | Borrowings | Debentures |
|---|---|---|---|
| Less than 1 year | ₩ | 339 | 854,010 |
| 1-5 years | | 61,345 | 1,800,000 |
| More than 5 years | | 230,223 | 1,830,000 |
| | ₩ | 291,907 | 4,484,010 |

(ii) As of December 31, 2016

| *In millions of won* | | Borrowings | Debentures |
|---|---|---|---|
| Less than 1 year | ₩ | 366 | 770,850 |
| 1-5 years | | 18,038 | 2,202,550 |
| More than 5 years | | 173,947 | 1,620,000 |
| | ₩ | 192,351 | 4,593,400 |

## 21. Borrowings and Debentures, Continued

(3) Long-term borrowings as of September 30, 2017 and December 31, 2016 are as follows:

*In millions of won*

| Lender | Description | Annual interest rate | | Maturity | | **September 30, 2017** | **December 31, 2016** |
|---|---|---|---|---|---|---|---|
| Korea Energy Agency | Foreign operation | Floating rate | 0.75% | 2023.03.15 | ₩ | 1,647 | 1,871 |
| Korea Energy Agency | Foreign operation | Floating rate | 0.75% | 2023.06.15 | | 64 | 73 |
| Korea Energy Agency | Foreign operation | Floating rate | 0.75% | 2023.12.15 | | - | 190 |
| Korea Energy Agency | Foreign operation | Floating rate | 0.75% | 2024.06.15 | | 50 | 56 |
| Korea Energy Agency | Foreign operation | Floating rate | 0.75% | 2024.09.15 | | 146 | 161 |
| Shinhan BNP Paribas ITMC Co., Ltd. | Subordinated loans | Fixed rate | 8.00% | 2039.12.29 | | 80,000 | 80,000 |
| Shinhan Bank | Senior loan | Fixed rate | 4.10% | 2035.03.29 | | 105,000 | 55,000 |
| Shinhan Bank | Senior loan | Floating rate | 3yr KTB rate + 1.1% | 2035.03.29 | | 105,000 | 55,000 |
| | | | | | | 291,907 | 192,351 |
| | | | Less: current portion | | | (339) | (366) |
| | | | | | ₩ | 291,568 | 191,985 |

## 21. Borrowings and Debentures, Continued

(4) Domestic debentures as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | Issue date | Maturity date | Annual interest rate | | | September 30, 2017 | December 31, 2016 |
|---|---|---|---|---|---|---|---|
| Corporate bond #17-2 | 2011.07.19 | 2018.07.19 | Fixed rate | 4.18% | ₩ | 100,000 | 100,000 |
| Corporate bond #17-3 | 2011.07.19 | 2021.07.19 | Fixed rate | 4.28% | | 100,000 | 100,000 |
| Corporate bond #18-1 | 2012.09.10 | 2019.09.10 | Fixed rate | 3.18% | | 100,000 | 100,000 |
| Corporate bond #18-2 | 2012.09.10 | 2022.09.10 | Fixed rate | 3.23% | | 90,000 | 90,000 |
| Corporate bond #18-3 | 2012.09.10 | 2027.09.10 | Fixed rate | 3.31% | | 110,000 | 110,000 |
| Corporate bond #19-1 | 2013.03.08 | 2017.03.08 | Fixed rate | 2.79% | | - | 90,000 |
| Corporate bond #19-2 | 2013.03.08 | 2020.03.08 | Fixed rate | 2.98% | | 80,000 | 80,000 |
| Corporate bond #19-3 | 2013.03.08 | 2023.03.08 | Fixed rate | 3.09% | | 130,000 | 130,000 |
| Corporate bond #20-1 | 2013.04.09 | 2017.04.09 | Fixed rate | 2.60% | | - | 90,000 |
| Corporate bond #20-2 | 2013.04.09 | 2020.04.09 | Fixed rate | 2.78% | | 100,000 | 100,000 |
| Corporate bond #20-3 | 2013.04.09 | 2023.04.09 | Fixed rate | 2.89% | | 210,000 | 210,000 |
| Corporate bond #21-2 | 2013.09.17 | 2020.09.17 | Fixed rate | 3.53% | | 100,000 | 100,000 |
| Corporate bond #22-2 | 2013.10.30 | 2018.10.30 | Fixed rate | 3.33% | | 40,000 | 40,000 |
| Corporate bond #22-3 | 2013.10.30 | 2023.10.30 | Fixed rate | 3.62% | | 40,000 | 40,000 |
| Corporate bond #23-1 | 2013.11.26 | 2017.11.26 | Fixed rate | 3.40% | | 80,000 | 80,000 |
| Corporate bond #23-2 | 2013.11.26 | 2023.11.26 | Fixed rate | 3.88% | | 100,000 | 100,000 |
| Corporate bond #24-1 | 2014.01.21 | 2019.01.21 | Fixed rate | 3.49% | | 150,000 | 150,000 |
| Corporate bond #24-2 | 2014.01.21 | 2024.01.21 | Fixed rate | 3.80% | | 50,000 | 50,000 |
| Corporate bond #26-1 | 2014.03.06 | 2019.03.06 | Fixed rate | 3.31% | | 50,000 | 50,000 |
| Corporate bond #26-2 | 2014.03.06 | 2024.03.06 | Fixed rate | 3.71% | | 160,000 | 160,000 |
| Corporate bond #26-3 | 2014.03.06 | 2034.03.06 | Fixed rate | 3.92% | | 90,000 | 90,000 |
| Corporate bond #27-1 | 2014.05.13 | 2019.05.13 | Fixed rate | 3.24% | | 70,000 | 70,000 |
| Corporate bond #27-2 | 2014.05.13 | 2024.05.13 | Fixed rate | 3.58% | | 260,000 | 260,000 |
| Corporate bond #27-3 | 2014.05.13 | 2029.05.13 | Fixed rate | 3.73% | | 60,000 | 60,000 |
| Corporate bond #28-1 | 2014.07.10 | 2017.07.10 | Fixed rate | 2.67% | | - | 110,000 |
| Corporate bond #28-2 | 2014.07.10 | 2021.07.10 | Fixed rate | 3.07% | | 60,000 | 60,000 |
| Corporate bond #29-1 | 2014.09.01 | 2017.09.01 | Fixed rate | 2.59% | | - | 180,000 |
| Corporate bond #29-2 | 2014.09.01 | 2019.09.01 | Fixed rate | 2.81% | | 60,000 | 60,000 |
| Corporate bond #30-1 | 2014.11.07 | 2019.11.07 | Fixed rate | 2.32% | | 190,000 | 190,000 |
| Corporate bond #30-2 | 2014.11.07 | 2024.11.07 | Fixed rate | 2.69% | | 60,000 | 60,000 |
| Corporate bond #31 | 2014.12.10 | 2017.12.10 | Fixed rate | 2.25% | | 100,000 | 100,000 |
| Private bond #32 | 2015.02.12 | 2018.02.12 | Fixed rate | 1.96% | | 100,000 | 100,000 |
| Corporate bond #33-1 | 2015.06.04 | 2018.06.04 | Fixed rate | 1.90% | | 60,000 | 60,000 |
| Corporate bond #33-2 | 2015.06.04 | 2022.06.04 | Fixed rate | 2.40% | | 40,000 | 40,000 |
| Corporate bond #34-1 | 2015.07.02 | 2018.07.02 | Fixed rate | 1.91% | | 70,000 | 70,000 |
| Corporate bond #34-2 | 2015.07.02 | 2020.07.02 | Fixed rate | 2.30% | | 130,000 | 130,000 |
| Corporate bond #34-3 | 2015.07.02 | 2025.07.02 | Fixed rate | 2.66% | | 120,000 | 120,000 |
| Corporate bond #35 | 2015.11.11 | 2020.11.11 | Fixed rate | 2.10% | | 60,000 | 60,000 |
| Corporate bond #36-1 | 2016.09.06 | 2021.09.06 | Fixed rate | 1.46% | | 80,000 | 80,000 |
| Corporate bond #36-2 | 2016.09.06 | 2026.09.06 | Fixed rate | 1.61% | | 60,000 | 60,000 |
| Corporate bond #37-1 | 2016.10.12 | 2021.10.12 | Fixed rate | 1.57% | | 40,000 | 40,000 |
| Corporate bond #37-2 | 2016.10.12 | 2026.10.12 | Fixed rate | 1.74% | | 30,000 | 30,000 |
| Corporate bond #38-1 | 2016.11.04 | 2019.11.04 | Fixed rate | 1.62% | | 70,000 | 70,000 |
| Corporate bond #38-2 | 2016.11.04 | 2026.11.04 | Fixed rate | 1.83% | | 20,000 | 20,000 |
| Corporate bond #39 | 2016.12.02 | 2026.12.02 | Fixed rate | 2.35% | | 20,000 | 20,000 |
| Corporate bond #40-1 | 2017.06.16 | 2022.06.16 | Fixed rate | 2.08% | | 50,000 | - |
| Corporate bond #40-2 | 2017.06.16 | 2027.06.16 | Fixed rate | 2.34% | | 50,000 | - |
| Corporate bond #40-3 | 2017.06.16 | 2037.06.16 | Fixed rate | 2.50% | | 110,000 | - |
| Corporate bond #41-1 | 2017.07.07 | 2022.07.07 | Fixed rate | 2.17% | | 60,000 | - |
| Corporate bond #41-2 | 2017.07.07 | 2027.07.07 | Fixed rate | 2.47% | | 50,000 | - |
| Corporate bond #41-3 | 2017.07.07 | 2037.07.07 | Fixed rate | 2.57% | | 100,000 | - |
| Corporate bond #42 | 2017.07.31 | 2020.07.31 | Fixed rate | 1.87% | | 80,000 | - |

## 21. Borrowings and Debentures, Continued

(4) Domestic debentures as of September 30, 2017 and December 31, 2016 are as follows, continued:

| | | |
|---|---|---|
| | 4,140,000 | 4,110,000 |
| Less: discount on debentures | (6,603) | (6,549) |
| Less: current portion | (510,000) | (650,000) |
| Add : current portion-discount on debentures | 197 | 304 |
| ₩ | 3,623,594 | 3,453,755 |

(5) Foreign debentures as of September 30, 2017 and December 31, 2016 are as follows:

(i) As of September 30, 2017

| *In millions of won, in thousands of USD* | Issue date | Maturity date | Annual interest rate | | USD | | Won equivalents |
|---|---|---|---|---|---|---|---|
| Euro bond #13 | 2013.02.05 | 2018.02.05 | Fixed rate | 1.88% | 300,000 | ₩ | 344,010 |
| | | | | | 300,000 | | 344,010 |
| | Less: discount on debentures | | | | | | (354) |
| | Less: current portion | | | | | | (344,010) |
| | Add : current portion-discount on debentures | | | | | | 354 |
| | | | | | | ₩ | - |

(ii) As of December 31, 2016

| *In millions of won, in thousands of USD* | Issue date | Maturity date | Annual interest rate | | USD | | Won equivalents |
|---|---|---|---|---|---|---|---|
| Euro bond #13 | 2013.02.05 | 2018.02.05 | Fixed rate | 1.88% | 300,000 | ₩ | 362,550 |
| Corporate bond #25 | 2015.01.28 | 2017.01.28 | Floating rate | 3M Libor + 1.05% | 100,000 | | 120,850 |
| | | | | | 400,000 | | 483,400 |
| | Less: discount on debentures | | | | | | (952) |
| | Less: current portion | | | | | | (120,850) |
| | Add : current portion-discount on debentures | | | | | | 5 |
| | | | | | | ₩ | 361,603 |

## 22. Retirement Benefit Obligations

(1) The Group operates a defined contribution retirement pension and defined benefit retirement pension for employees. For the nine-month periods ended September 30, 2017 and 2016, the Group recognized cost of sales of ₩3,579 million and ₩3,261 million, respectively; selling and administrative expenses of ₩577 million and ₩393 million, respectively; and others of ₩143 million and ₩532 million, respectively. There is no contribution of non-payment which should be recognized as a liability.

(2) The principal assumptions used on actuarial valuation as of September 30, 2017 and December 31, 2016 are as follows:

| | **September 30, 2017** | **December 31, 2016** |
|---|---|---|
| Discount rate | 2.36%~2.83% | 2.36%~2.62% |
| Future salary and benefit levels | 3.00%~8.84% | 3.00%~8.84% |

## 22. Retirement Benefit Obligations, Continued

(3) Details of the Group's expense relating to its defined benefit plans for the three-month and nine-month periods ended September 30, 2017 and 2016 are as follows:

| *In millions of won* | | September 30, 2017 | | September 30, 2016 | |
|---|---|---|---|---|---|
| | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| Current service cost | ₩ | 4,011 | 11,759 | 3,585 | 10,109 |
| Interest cost | | 741 | 2,101 | 594 | 1,639 |
| Expected return on plan assets | | (134) | (401) | (120) | (359) |
| | ₩ | 4,618 | 13,459 | 4,059 | 11,389 |

The Group recognized these expenses as payments to employee benefits. For the nine-month periods ended September 30, 2017 and 2016, the Group recognized cost of sales of ₩11,863 million and ₩8,722 million, respectively; selling and administrative expenses of ₩823 million and ₩621 million, respectively; and others of ₩773 million and ₩2,046 million, respectively.

(4) Retirement benefit obligation as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | September 30, 2017 | December 31, 2016 |
|---|---|---|---|
| Present value of defined benefit obligation from funded plans | ₩ | 113,421 | 103,607 |
| Fair value of plan assets | | (20,629) | (20,310) |
| Net retirement obligations from defined benefit plans | ₩ | 92,792 | 83,297 |

In addition to net liabilities arising from the defined benefit obligation, long-term employee benefit liabilities of ₩457 million and ₩339 million are included in employee benefit obligations as of September 30, 2017 and December 31, 2016, respectively.

(5) Changes in retirement benefit obligation for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows:

| *In millions of won* | | September 30, 2017 | December 31, 2016 |
|---|---|---|---|
| Beginning balance | ₩ | 103,607 | 76,542 |
| Current service cost | | 11,759 | 14,364 |
| Interest cost | | 2,101 | 2,321 |
| Remeasurement component | | (2,312) | 11,913 |
| Actual payments | | (1,734) | (1,533) |
| Ending balance | ₩ | 113,421 | 103,607 |

## 22. Retirement Benefit Obligations, Continued

(6) Changes in the fair value of the plan assets for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows:

| *In millions of won* | | September 30, 2017 | December 31, 2016 |
|---|---|---|---|
| Beginning balance | ₩ | 20,310 | 18,536 |
| Expected return | | 401 | 485 |
| Remeasurement component | | (82) | (154) |
| Contributions by the employers | | - | 1,443 |
| Ending balance | ₩ | 20,629 | 20,310 |

Loss on accumulated remeasurement component recorded as other comprehensive income (loss) amounted to ₩35,373 million and ₩37,062 million, respectively, as of September 30, 2017 and December 31, 2016.

(7) The amount of major categories of the fair value of plan assets as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | September 30, 2017 | December 31, 2016 |
|---|---|---|---|
| Equity instrument | ₩ | 686 | 824 |
| Debt instrument | | 3,275 | 3,065 |
| Deposits | | 6,150 | 6,117 |
| Others | | 10,518 | 10,304 |
| | ₩ | 20,629 | 20,310 |

Actual return on plan assets for the nine-month periods ended September 30, 2017 and 2016 are ₩319 million and ₩303 million, respectively.

(8) Remeasurement component recognized in other comprehensive income (loss) for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows:

| *In millions of won* | | September 30, 2017 | December 31, 2016 |
|---|---|---|---|
| Actuarial gain from changes in financial assumptions | ₩ | 3,405 | 745 |
| Experience adjustments | | (1,093) | (12,658) |
| Expected return | | (82) | (154) |
| | ₩ | 2,230 | (12,067) |

## 23. Provisions

(1) Provisions as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | **September 30, 2017** | | **December 31, 2016** | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Provision for employment benefits | ₩ | 26,468 | - | 27,644 | - |
| Other provisions | | | | | |
| Renewable portfolio standard provisions(*1) | | 21,904 | - | 25,828 | - |
| Provision for litigation(*2) | | 5,166 | - | 7,373 | - |
| Financial guarantee provisions | | - | - | 455 | - |
| | ₩ | 53,538 | - | 61,300 | - |

(*1) The provision is related to the estimated penalty the Group will be levied by the government for failure to comply with governmental regulations that require the production of a certain amount of power from renewable energy sources such as solar, wind and biomass.
(*2) The Group recognized a provision for the litigation as an outflow of resources embodying economic benefits is probable and reliably estimable.

(2) Changes in provisions for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows:

(i) For the nine-month period ended September 30, 2017

| *In millions of won* | | Beginning balance | Accrual (Reversal) of provision | Use | Ending balance |
|---|---|---|---|---|---|
| Provision for employment benefits | ₩ | 27,644 | 22,419 | (23,595) | 26,468 |
| Other provisions | | | | | |
| Renewable portfolio standard provisions | | 25,828 | (3,924) | - | 21,904 |
| Provision for litigation | | 7,373 | 6,160 | (8,367) | 5,166 |
| Provision for financial guarantee | | 455 | (455) | - | - |
| | ₩ | 61,300 | 24,200 | (31,962) | 53,538 |

(ii) For the year ended December 31, 2016

| *In millions of won* | | Beginning balance | Accrual (Reversal) of provision | Use | Ending balance |
|---|---|---|---|---|---|
| Provision for employment benefits | ₩ | 30,250 | 31,294 | (33,900) | 27,644 |
| Other provisions | | | | | |
| Renewable portfolio standard provisions | | 23,407 | 2,421 | - | 25,828 |
| Provision for litigation | | 14,908 | (220) | (7,315) | 7,373 |
| Provision for financial guarantee | | 2,156 | (1,701) | - | 455 |
| | ₩ | 70,721 | 31,794 | (41,215) | 61,300 |

(3) The Group has not recognized a provision for greenhouse gas emissions because greenhouse gas emissions that were generated as of September 30, 2017 and December 31, 2016 did not exceed the allocated emissions received free from the government.

## 24. Government Grants

(1) Accounting policies of Government Grants

Government grants whose primary condition is that the Group purchase, construct or otherwise acquire long-term assets are deducted in calculating the carrying amount of the asset

(2) Changes in government grants for the nine-month period ended September 30, 2017 and for the year ended Decemer 31, 2016 are as follows:

(i) For the nine-month period ended September 30, 2017

*In millions of won*

| | | Beginning balance | Receipt | Depreciation offset | Ending balance |
|---|---|---|---|---|---|
| Buildings | ₩ | 100 | 300 | (6) | 394 |
| Machinery | | 284 | - | (26) | 258 |
| Vehicles | | - | 19 | (1) | 18 |
| Equipment | | 13 | 43 | (17) | 39 |
| | ₩ | 397 | 362 | (50) | 709 |

(ii) For the year ended December 31, 2016

*In millions of won*

| | | Beginning balance | Depreciation offset | Ending balance |
|---|---|---|---|---|
| Buildings | ₩ | 104 | (4) | 100 |
| Machinery | | 321 | (37) | 284 |
| Equipment | | 149 | (136) | 13 |
| | ₩ | 574 | (177) | 397 |

## 25. Non-financial Liabilities

Non-financial liabilities as of September 30, 2017 and December 31, 2016 are as follows:

*In millions of won*

| | | September 30, 2017 | | December 31, 2016 | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Advances received | ₩ | 9,878 | - | 9,772 | - |
| Unearned revenues | | 702 | - | 1,081 | - |
| Withholdings | | 10,448 | - | 9,515 | - |
| Others | | 28,023 | 142 | 4,109 | - |
| | ₩ | 49,051 | 142 | 24,477 | - |

## 26. Share Capital

(1) Shares capital as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won , except par value* | | | | **September 30, 2017** | | **December 31, 2016** | |
|---|---|---|---|---|---|---|---|
| Type | Number of shares authorized | Number of shares issued | Par value | Govt. | Non-govt. | Govt. | Non-govt. |
| Common Stock | 100,000,000 shares | 47,739,895 shares | 5,000 | - | 238,699 | - | 238,699 |

(2) Changes in number of shares issued for the nine-month period end September 30, 2017 and for the year ended December 31, 2016 are as follows:

| *Number of shares* | **September 30, 2017** | **December 31, 2016** |
|---|---|---|
| Beginning | 47,739,895 | 45,765,507 |
| Investment in kind(*) | - | 1,974,388 |
| Ending | 47,739,895 | 47,739,895 |

(*) KEPCO made an investment in kind by contributing the shares of the PT. Bayan Resources TBK (available-for-sale securities).

(3) Share premium as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | **September 30, 2017** | **December 31, 2016** |
|---|---|---|---|
| Paid-in capital in excess of par value | ₩ | 1,615,309 | 1,615,309 |

## 27. Retained Earnings and Dividends

(1) Retained earnings as of September 30, 2017 and December 31, 2016 are summarized as follows:

| *In millions of won* | | **September 30, 2017** | **December 31, 2016** |
|---|---|---|---|
| Legal reserves(*) | ₩ | 66,145 | 60,082 |
| Voluntary reserves | | 1,472,262 | 1,112,619 |
| Retained earnings before appropriations | | 903,195 | 1,141,120 |
| | ₩ | 2,441,602 | 2,313,821 |

(*) The Commercial Code of the Republic of Korea requires the Company to appropriate as a legal reserve, an amount equal to a minimum of 10% of annual cash dividends paid, until the reserve equals 50% of its issued capital stock. The reserve is not available for the payment of cash dividends, but may be transferred to capital stock through a resolution of the Board of Directors or used to reduce accumulated deficit, if any, with the ratification of the shareholders.

## 27. Retained Earnings and Dividends, Continued

(2) Composition of voluntary reserves as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | September 30, 2017 | December 31, 2016 |
|---|---|---|---|
| Reserve for business stabilization(*1) | ₩ | 38 | 38 |
| Reserve for research and human development(*2) | | 47,000 | 47,000 |
| Reserve for investment on social overhead capital | | 84,498 | 84,498 |
| Reserve for business expansion | | 1,340,726 | 981,083 |
| | ₩ | 1,472,262 | 1,112,619 |

(*1) Prior to 2002, the Company appropriated certain tax-deductible benefits as reserve for business stabilization, for offsetting future deficit in accordance with the relevant tax laws. Due to the amendment of such tax laws on December 11, 2002, the reserve is no longer required. However, the Company continues to maintain such reserve on a voluntary basis.

(*2) The reserve for research and human development is appropriated by the Company to use as qualified tax credits to reduce corporate tax liabilities. The reserve is available for cash dividends for a certain period as defined by the Tax Incentive Control Law of Korea.

(3) Changes in retained earnings before appropriations for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows:

| *In millions of won* | | September 30, 2017 | December 31, 2016 |
|---|---|---|---|
| Beginning balance | ₩ | 2,313,821 | 1,918,839 |
| Profit for the period attributed to owner of the Company | | 186,706 | 421,976 |
| Dividends paid | | (60,630) | (17,849) |
| Remeasurement of defined benefit liability, net of tax | | 1,689 | (9,146) |
| Changes in retained earnings of equity method investments | | 16 | 1 |
| Ending balance | ₩ | 2,441,602 | 2,313,821 |

(4) Dividends paid for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows:

(i) For the nine-month period ended September 30, 2017

| Type | Number of shares issued (shares) | Number of treasury shares (shares) | Number of share eligible for dividends (shares) | Dividends per share (in won) | Total dividends (in millions of won) |
|---|---|---|---|---|---|
| Common stock | 47,739,895 | - | 47,739,895 | 1,270 | 60,630 |

(ii) For the year ended December 31, 2016

| Type | Number of shares issued (shares) | Number of treasury shares (shares) | Number of share eligible for dividends (shares) | Dividends per share (in won) | Total dividends (in millions of won) |
|---|---|---|---|---|---|
| Common stock | 47,739,895 | - | 45,765,507 | 390 | 17,849 |

## 27. Retained Earnings and Dividends, Continued

(5) Changes in remeasurement components related to defined benefit liability for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows:

| *In millions of won* | | September 30, 2017 | December 31, 2016 |
|---|---|---|---|
| Beginning balance | ₩ | 37,062 | 27,916 |
| Changes for the period | | (2,230) | 12,067 |
| Income tax effect | | 541 | (2,921) |
| Ending balance | ₩ | 35,373 | 37,062 |

## 28. Other Components of Equity

(1) Other components of equity as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | September 30, 2017 | December 31, 2016 |
|---|---|---|---|
| Accumulated other comprehensive loss | ₩ | (13,135) | (7,316) |
| Other equity | | (878) | (878) |
| | ₩ | (14,013) | (8,194) |

(2) Changes in accumulated other comprehensive income (loss) for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows:

(i) For the nine-month period ended September 30, 2017

| *In millions of won* | | Available-for-sale financial assets valuation reserve | Reserve for gain (loss) on valuation of derivatives | Share in other comprehensive income (loss) of associates and joint ventures | Reserve for overseas operations translation credit | Total |
|---|---|---|---|---|---|---|
| Beginning balance | ₩ | (1,038) | (1,494) | (3,255) | (1,529) | (7,316) |
| Available-for-sale financial assets | | (4,395) | - | - | - | (4,395) |
| Valuation of derivatives | | - | 2,083 | - | - | 2,083 |
| Investments in associates and joint ventures | | - | - | (2,785) | - | (2,785) |
| Overseas operations translation | | - | - | - | (1,282) | (1,282) |
| Tax effect | | 1,064 | (504) | - | - | 560 |
| Ending balance | ₩ | (4,369) | 85 | (6,040) | (2,811) | (13,135) |

## 28. Other Components of Equity, Continued

(2) Changes in accumulated other comprehensive income (loss) for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 are as follows, continued:

(ii) For the year ended December 31, 2016

| *In millions of won* | Available-for-sale financial assets valuation reserve | Reserve for gain (loss) on valuation of derivatives | Share in other comprehensive income (loss) of associates and joint ventures | Reserve for overseas operations translation credit | Total |
|---|---|---|---|---|---|
| Beginning balance ₩ | 2,789 | (3,347) | (3,338) | (2,243) | (6,139) |
| Available-for-sale financial assets | (5,049) | - | - | - | (5,049) |
| Valuation of derivatives | - | 2,444 | - | - | 2,444 |
| Investments in associates and joint ventures | - | - | 83 | - | 83 |
| Overseas operations translation | - | - | - | 714 | 714 |
| Tax effect | 1,222 | (591) | - | - | 631 |
| Ending balance ₩ | (1,038) | (1,494) | (3,255) | (1,529) | (7,316) |

## 29. Sales

Details of sales for the three-month and nine-month periods ended September 30, 2017 and 2016 are as follows:

(i) For the three-month and nine-month periods ended September 30, 2017

| *In millions of won* | Three-month period ended | | Nine-month period ended | |
|---|---|---|---|---|
| | Domestic | Overseas | Domestic | Overseas |
| Income from sales of electric power ₩ | 1,226,175 | - | 3,348,810 | - |
| Income from services | - | 3,656 | - | 9,692 |
| Other sales | - | 4,295 | - | 13,158 |
| ₩ | 1,226,175 | 7,951 | 3,348,810 | 22,850 |

(ii) For the three-month and nine-month periods ended September 30, 2016

| *In millions of won* | Three-month period ended | | Nine-month period ended | |
|---|---|---|---|---|
| | Domestic | Overseas | Domestic | Overseas |
| Income from sales of electric power ₩ | 1,062,226 | - | 2,963,067 | - |
| Income from services | - | - | - | 3,574 |
| Other sales | - | 8,932 | - | 14,667 |
| ₩ | 1,062,226 | 8,932 | 2,963,067 | 18,241 |

## 30. Selling and Administrative Expenses

Composition of selling and administrative expenses for the three-month and nine-month periods ended September 30, 2017 and 2016 are as follows:

| *In millions of won* | | September 30, 2017 | | September 30, 2016 | |
|---|---|---|---|---|---|
| | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| Salaries | ₩ | 4,365 | 11,201 | 6,032 | 12,178 |
| Retirement benefit expense | | 456 | 1,400 | 307 | 1,014 |
| Welfare and benefit expense | | 306 | 1,642 | 973 | 2,108 |
| Insurance expenses | | 33 | 182 | 40 | 195 |
| Depreciation | | 2,992 | 9,155 | 2,970 | 9,623 |
| Amortization | | 662 | 1,964 | 619 | 4,244 |
| Commission | | 4,871 | 11,604 | 3,984 | 9,671 |
| Advertisement | | 205 | 579 | 189 | 620 |
| Training | | 72 | 167 | 159 | 289 |
| Vehicles | | 18 | 62 | 32 | 56 |
| Publication expenses | | 24 | 75 | 11 | 74 |
| Business expenses | | 59 | 154 | 47 | 128 |
| Rent | | 219 | 427 | 205 | 425 |
| Communication | | 364 | 1,044 | 350 | 1,092 |
| Transportation expenses | | 1 | 9 | - | - |
| Taxes and dues | | 129 | 1,979 | 8 | 1,342 |
| Supplies expenses | | 20 | 39 | 45 | 81 |
| Repairs | | 3,389 | 7,852 | 2,966 | 11,116 |
| Ordinary development expenses | | 3,760 | 8,483 | 1,903 | 4,772 |
| Travel expenses | | 148 | 493 | 161 | 378 |
| Clothing expenses | | 6 | 60 | 355 | 363 |
| Research and analysis expenses | | - | 2 | 2 | 4 |
| Membership fee | | 57 | 112 | 40 | 91 |
| Others | | 12,765 | 17,477 | 912 | 3,331 |
| | ₩ | 34,921 | 76,162 | 22,310 | 63,195 |

## 31. Other non-operating Income and Expenses

(1) Other non-operating income for the three-month and nine-month periods ended September 30, 2017 and 2016 are as follows:

| | | September 30, 2017 | | September 30, 2016 | |
|---|---|---|---|---|---|
| *In millions of won* | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| Reversal of other provisions | ₩ | - | - | - | 220 |
| Gain on assets contributed | | - | 896 | - | - |
| Compensation and reparations revenue | | 148 | 1,837 | 187 | 273 |
| Rental income | | 1,275 | 2,990 | 1,055 | 3,017 |
| Guarantee fee | | 216 | 454 | 595 | 1,640 |
| | ₩ | 1,639 | 6,177 | 1,837 | 5,150 |

(2) Other non-operating expenses for the three-month and nine-month periods ended September 30, 2017 and 2016 are as follows:

| | | September 30, 2017 | | September 30, 2016 | |
|---|---|---|---|---|---|
| *In millions of won* | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| Compensation and reparations expenses | ₩ | - | 5,205 | - | - |
| Accretion expenses of other provisions | | - | 6,159 | - | - |
| Donations | | 842 | 1,126 | 449 | 953 |
| | ₩ | 842 | 12,490 | 449 | 953 |

## 32. Other Profit and Loss

Composition of other profit and loss for three-month and nine-month periods ended September 30, 2017 and 2016 are as follows:

| | | September 30, 2017 | | September 30, 2016 | |
|---|---|---|---|---|---|
| *In millions of won* | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| Gain on disposal of property, plant and equipment | ₩ | 56 | 56 | - | - |
| Gain on foreign currency translation(*) | | 17 | 1,872 | 3,235 | 3,634 |
| Gain on foreign currency transactions(*) | | 983 | 6,987 | 1,800 | 4,429 |
| Gain on disposal of inventories | | 188 | 204 | 39 | 87 |
| Other income | | 729 | 5,002 | 3,141 | 6,307 |
| Loss on disposal of property, plant and equipment | | (1,160) | (3,477) | (3,140) | (7,233) |
| Loss on disposal of inventories | | - | (316) | (12) | (25) |
| Loss on foreign currency translation(*) | | - | (2,437) | - | (12) |
| Loss on foreign currency transactions(*) | | (1,864) | (4,874) | (536) | (3,219) |
| Other loss | | (4,690) | (12,769) | (40) | (3,594) |
| | ₩ | (5,741) | (9,752) | 4,487 | 374 |

(*) Incurred from the Group's operating activities

## 33. Finance Income

(1) Finance income for the three-month and nine-month periods ended September 30, 2017 and 2016 are as follows:

| *In millions of won* | | September 30, 2017 | | September 30, 2016 | |
|---|---|---|---|---|---|
| | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| Interest income | ₩ | 5,553 | 7,796 | 1,118 | 4,477 |
| Gain on valuation of derivatives | | 2,510 | 568 | - | 54 |
| Gain on transactions of derivatives | | 2,070 | 4,056 | 626 | 3,105 |
| Gain on foreign currency translation(*) | | 2,898 | 25,081 | 26,865 | 30,280 |
| Gain on foreign currency transactions(*) | | - | 4,230 | - | - |
| | ₩ | 13,031 | 41,731 | 28,609 | 37,916 |

(*) Incurred from Group's financing activities

(2) Interest income included in finance income for the three-month and nine-month periods ended September 30, 2017 and 2016 are as follows:

| *In millions of won* | | September 30, 2017 | | September 30, 2016 | |
|---|---|---|---|---|---|
| | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| Cash and cash equivalents | ₩ | 154 | 1,026 | 661 | 1,758 |
| Loans | | 4,367 | 4,693 | 176 | 339 |
| Financial instruments | | 848 | 1,497 | 156 | 1,945 |
| Trade and other receivables | | 184 | 580 | 125 | 435 |
| | ₩ | 5,553 | 7,796 | 1,118 | 4,477 |

## 34. Finance Expenses

(1) Finance expenses for the three-month and nine-month periods ended September 30, 2017 and 2016 are as follows:

| *In millions of won* | | September 30, 2017 | | September 30, 2016 | |
|---|---|---|---|---|---|
| | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| Interest expense | ₩ | 34,193 | 76,696 | 15,242 | 48,995 |
| Loss on valuation of derivatives | | - | 18,542 | 27,884 | 30,743 |
| Loss on transaction of derivatives | | 994 | 10,057 | 1,981 | 4,387 |
| Loss on foreign currency translation(*) | | - | 16 | - | 485 |
| | ₩ | 35,187 | 105,311 | 45,107 | 84,610 |

(*) Incurred from Group's financing activities

(2) Interest expenses included in finance expenses for the three-month and nine-month periods ended September 30, 2017 and 2016 are as follows:

| *In millions of won* | | September 30, 2017 | | September 30, 2016 | |
|---|---|---|---|---|---|
| | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| Short term borrowings | ₩ | - | 6 | - | - |
| Long term borrowings | | 3,635 | 9,092 | 2,333 | 2,348 |
| Debentures | | 33,393 | 95,289 | 35,502 | 106,572 |
| Other financial liabilities | | 1,284 | 2,685 | 1,471 | 3,085 |
| | | 38,312 | 107,072 | 39,306 | 112,005 |
| Less : capitalized borrowing costs | | (4,119) | (30,376) | (24,064) | (63,010) |
| | ₩ | 34,193 | 76,696 | 15,242 | 48,995 |

Capitalization rates for the nine-month periods ended September 30, 2017 and 2016 are 2.84% and 3.07%, respectively.

## 35. Income Tax Expenses

(1) Components of income tax expenses for the three-month and nine-month periods ended September 30, 2017 and 2016 are as follows:

| *In millions of won* | | September 30, 2017 | | September 30, 2016 | |
|---|---|---|---|---|---|
| | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| Current income tax expenses (benefits) | ₩ | (9,085) | 35,239 | 13,402 | 103,030 |
| Current income tax | | (10,896) | 25,403 | 13,009 | 99,172 |
| Adjustment for prior years | | - | 9,817 | - | (580) |
| Income tax charged (credited) directly in equity | | 1,811 | 19 | 393 | 4,438 |
| Deferred income tax expense (benefit) | | 12,697 | 32,927 | 8,116 | (18,862) |
| Generation and realization of temporary differences | | 12,695 | 36,035 | 8,116 | (18,862) |
| Changes of unrecognized tax losses, tax deductions and temporary differences for prior years | | 2 | (3,108) | - | - |
| Income tax expenses | ₩ | 3,612 | 68,166 | 21,518 | 84,168 |

(2) Reconciliation between income tax expenses and accounting income for the nine-month periods ended September 30, 2017 and 2016 are as follows:

| *In millions of won* | | September 30, 2017 | September 30, 2016 |
|---|---|---|---|
| Profit before income tax expense | ₩ | 254,888 | 377,776 |
| Income tax expense in accordance with applicable tax rate (tax rate: 24.2%) | | 61,683 | 91,422 |
| Adjustments | | | |
| Effect of applying gradual tax rate | | (347) | (462) |
| Effect of non-taxable income | | (21) | (8,304) |
| Effect of non-deductible expenses | | 3,390 | 4,179 |
| Effect of tax credit and tax reduction | | (2,234) | - |
| Changes of unrecognized tax losses, tax deductions and temporary differences for prior years | | (3,108) | (1,411) |
| Others | | (1,014) | (676) |
| | | (3,334) | (6,674) |
| Change to estimates for prior years | | 9,817 | (580) |
| Income tax expense | ₩ | 68,166 | 84,168 |
| Effective tax rate | | 26.7% | 22.3% |

## 36. Expenses Classified by Nature

Expenses classified by nature for the nine-month period ended September 30, 2017 and 2016 are as follows:

(i) For the nine-month period ended September 30, 2017

| *In millions of won* | | Selling and administrative expenses | Cost of sales | Total |
|---|---|---|---|---|
| Changes in inventories(*) | ₩ | - | 2,206,024 | 2,206,024 |
| Salaries | | 11,201 | 104,169 | 115,370 |
| Retirement benefit expense | | 1,400 | 15,442 | 16,842 |
| Welfare and benefit expense | | 1,642 | 12,367 | 14,009 |
| Insurance expenses | | 182 | 8,254 | 8,436 |
| Deprecation | | 9,155 | 442,093 | 451,248 |
| Amortization | | 1,964 | 4,767 | 6,731 |
| Commission | | 11,604 | 8,007 | 19,611 |
| Advertisement | | 579 | 303 | 882 |
| Training | | 167 | 63 | 230 |
| Vehicles | | 62 | 65 | 127 |
| Publication expenses | | 75 | 73 | 148 |
| Business expenses | | 154 | 225 | 379 |
| Rent | | 427 | 11,287 | 11,714 |
| Communication | | 1,044 | 137 | 1,181 |
| Transportation expenses | | 9 | 12 | 21 |
| Taxes and dues | | 1,979 | 16,261 | 18,240 |
| Supplies expenses | | 39 | 471 | 510 |
| Utilities expenses | | - | 648 | 648 |
| Repairs | | 7,852 | 100,782 | 108,634 |
| Ordinary development expenses | | 8,483 | 7,378 | 15,861 |
| RPS provision | | - | 6,075 | 6,075 |
| Greenhouse gas emission rights | | - | (6,144) | (6,144) |
| Travel expenses | | 493 | 824 | 1,317 |
| Clothing expenses | | 60 | 5 | 65 |
| Research and analysis expenses | | 2 | 96 | 98 |
| Membership fee | | 112 | 262 | 374 |
| Others | | 17,477 | 12,991 | 30,468 |
| | ₩ | 76,162 | 2,952,937 | 3,029,099 |

(*) This includes incurred fuel costs and other operational costs.

## 36. Expenses Classified by Nature, Continued

Expenses classified by nature for the nine-month period ended September 30, 2017 and 2016 are as follows, continued:

(ii) For the nine-month period ended September 30, 2016

| *In millions of won* | | Selling and administrative expenses | Cost of sales | Total |
|---|---|---|---|---|
| Changes in inventories(*) | ₩ | - | 1,861,823 | 1,861,823 |
| Salaries | | 12,178 | 85,524 | 97,702 |
| Retirement benefit expense | | 1,014 | 11,983 | 12,997 |
| Welfare and benefit expense | | 2,108 | 8,426 | 10,534 |
| Insurance expenses | | 195 | 7,298 | 7,493 |
| Deprecation | | 9,623 | 369,894 | 379,517 |
| Amortization | | 4,244 | 2,015 | 6,259 |
| Commission | | 9,671 | 7,078 | 16,749 |
| Advertisement | | 620 | 301 | 921 |
| Training | | 289 | 39 | 328 |
| Vehicles | | 56 | 49 | 105 |
| Publication expenses | | 74 | 56 | 130 |
| Business expenses | | 128 | 146 | 274 |
| Rent | | 425 | 10,521 | 10,946 |
| Communication | | 1,092 | 118 | 1,210 |
| Transportation expenses | | - | 26 | 26 |
| Taxes and dues | | 1,342 | 15,316 | 16,658 |
| Supplies expenses | | 81 | 343 | 424 |
| Utilities expenses | | - | 544 | 544 |
| Repairs | | 11,116 | 95,768 | 106,884 |
| Ordinary development expenses | | 4,772 | 9,235 | 14,007 |
| RPS provision | | - | 4,086 | 4,086 |
| Greenhouse gas emission rights | | - | (1,670) | (1,670) |
| Travel expenses | | 378 | 375 | 753 |
| Clothing expenses | | 363 | 6 | 369 |
| Research and analysis expenses | | 4 | 67 | 71 |
| Membership fee | | 91 | 222 | 313 |
| Others | | 3,331 | 6,983 | 10,314 |
| | ₩ | 63,195 | 2,496,572 | 2,559,767 |

(*) This includes incurred fuel costs and other operational costs.

## 37. Earnings per share

(1) Basic earnings per share for the three-month and nine-month periods ended September 30, 2017 and 2016 are as follows:

| | | **September 30, 2017** | | **September 30, 2016** | |
|---|---|---|---|---|---|
| *In won* | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| Basic earnings per share | ₩ | 265 | 3,911 | 1,505 | 6,393 |

## 37. Earnings per share, Continued

(2) Profit for the period and weighted average number of common shares outstanding for the three-month and nine-month periods ended September 30, 2017 and 2016 are as follows:

| *In millions of won, except for shares* | | September 30, 2017 | | September 30, 2016 | |
|---|---|---|---|---|---|
| | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| Profit used in the calculation of basic earnings per share | ₩ | 12,671 | 186,706 | 68,884 | 292,557 |
| Weighted average number of common shares | | 47,739,895 | 47,739,895 | 45,765,507 | 45,765,507 |

## 38. Risk Management

(1) Capital risk management

The Group manages its capital to ensure that it will be able to continue business while maximizing the return to shareholder's through the optimization of debt and equity balance business. The capital structure of the Group consists of net debt (offset by cash and bank balances) and equity. The Group's overall capital risk management strategy remains consistent with the prior year.

Details of the Group's capital management accounts as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | September 30, 2017 | December 31, 2016 |
|---|---|---|---|
| Total borrowings and debentures | ₩ | 4,768,960 | 4,778,250 |
| Cash and cash equivalents(*) | | 341,985 | 320,431 |
| Net borrowings and debentures | | 4,426,975 | 4,457,819 |
| Total shareholder's equity | | 4,328,145 | 4,206,171 |
| Debt to equity ratio | | 102.28% | 105.98% |

(*) Short-term financial instruments are included.

(2) Financial risk management

The Group is exposed to various risks related to its financial instruments, such as market risk (currency risk, interest rate risk, price risk) and credit risk. The Group monitors and manages the financial risks relating to the operations of the Group through internal risk reports which analyse exposures by degree and magnitude of risks.

The Group uses derivative financial instruments to hedge certain risk exposures. The Group's overall financial risk management strategy remains consistent with the prior year.

## 38. Risk Management, Continued

(2) Financial risk management, continued

1) Credit risk

Credit risk is the risk of finance loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises primarily from the Group's debt securities and derivative instruments. In addition, credit risk exposure may exist within financial guarantees and unused lines of credit. The financial institutions the Group enters into transactions with are reputable financial institutions, therefore the credit risk to the Group is considered limited. The Group sets credit transaction limits based on evaluations of client's credit, through information obtained from the credit bureau and disclosed financial position at committing contracts.

a) Credit risk management

The Group uses publicly available information and its own internal data related to accounts receivable to rate its major customers and to measure the credit risk that a counter party will default on a contractual obligation. As the majority of the Group's accounts receivables are due from governmental entities, the Group does not have significant credit risk exposure. Regarding its debt securities, the Group continuously reviews credit ratings issued by credit agencies, and the Group's working capital (i.e. cash) is deposited at financial institutions with high credit ratings.

b) Impairment and allowance accounts

In accordance with the Group policies, individual material financial assets are assessed on a regular basis, trade receivables that are assessed not to be impaired individually are, in addition, assessed for impairment on a collective basis. The estimated value of any acquired collateral and estimated collectable amounts are included in this assessment.

The allowance for bad debts assessed on a collective basis is recognized for (i) the group of assets which individually are not material and (ii) incurred but not recognized losses that are assessed using statistical methods, judgment and historical experience.

Book values of the financial assets represent the maximum exposed amounts of the credit risk. Details of the Group's level of maximum exposure to credit risk as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | **September 30, 2017** | **December 31, 2016** |
|---|---|---|---|
| Cash and cash equivalents | ₩ | 183,929 | 320,431 |
| Financial instruments | | 168,208 | - |
| Available-for-sale financial assets | | 92,078 | 96,276 |
| Trade and other receivables | | 452,066 | 569,428 |
| Loans | | 68,784 | 15,000 |
| Derivative assets | | 19,696 | 49,448 |
| Financial guarantee contracts(*) | | - | 160,247 |
| | ₩ | 984,761 | 1,210,830 |

(*) Maximum exposure associated with the financial guarantee contracts is the maximum amounts of the obligation.

For the nine-month period ended September 30, 2017, the Group has no financial assets and non-financial assets acquired by the execution of the lien or held for credit enhancement needs.

## 38. Risk Management, Continued

(2) Financial risk management, continued

2) Market risk

Market risk is the risk that the Group's fair values of the financial instruments or future cash flows are affected by the changes in the market. Market risk consists of interest rate risk, currency risk and other price risk.

3) Sensitivity analysis

a) Major assets and liabilities with uncertainties in underlying assumptions

① Defined benefit obligation

A sensitivity analysis on the Group's defined benefit obligation assuming a 1% increase and decrease in various assumptions as of September 30, 2017 and December 31, 2016 are as follows:

*In millions of won*

| | | | September 30, 2017 | | December 31, 2016 | |
|---|---|---|---|---|---|---|
| Assumptions | Accounts | | 1% Increase | 1% Decrease | 1% Increase | 1% Decrease |
| Future salary increases | Defined benefit obligation | ₩ | 17,275 | (14,760) | 15,267 | (13,112) |
| Discount rate | Defined benefit obligation | | (14,579) | 17,470 | (13,536) | 16,372 |

Changes of employee benefits assuming 1% increase and decrease movements in discount rate on plan for the nine-month periods ended September 30, 2017 and 2016 are ₩153 million and ₩140 million, respectively.

② Provisions

Changes in provisions due to movements in underlying assumptions as of September 30, 2017 and December 31, 2016 are as follows:

| Assumptions | Accounts | September 30, 2017 | December 31, 2016 |
|---|---|---|---|
| Expected payments rate | Provision for employment benefits | 292.28% | 307.64% |

A sensitivity analysis on the Group's provision for employment benefit assuming a 1% increase and decrease in various assumptions as of September 30, 2017 and December 31, 2016 are as follows:

*In millions of won*

| | | | September 30, 2017 | | December 31, 2016 | |
|---|---|---|---|---|---|---|
| Assumptions | Accounts | | 1% Increase | 1% Decrease | 1% Increase | 1% Decrease |
| Expected payments rate | Provision for employment benefits | ₩ | 162 | (162) | 162 | (162) |

## 38. Risk Management, Continued

(2) Financial risk management, continued

3) Sensitivity analysis, continued

b) Management judgment affected by uncertainties in underlying assumptions

① Foreign currency risk

The Group undertakes transactions denominated in foreign currencies; consequently, exposures to currency exchange rate fluctuations arise. The carrying amount of the Group's foreign currency denominated monetary assets and monetary liabilities at the end of the reporting period are as follows:

| | Assets | | Liabilities | |
|---|---|---|---|---|
| *In thousands of foreign currency* | **September 30, 2017** | **December 31, 2016** | **September 30, 2017** | **December 31, 2016** |
| USD | 142,769 | 33,269 | 400,523 | 497,614 |
| EUR | 3,607 | 191 | 12,721 | 13,197 |
| AUD | - | - | - | - |
| CNY | 13,002 | - | 26,140 | - |
| IDR | - | - | 12,626 | - |
| CHF | - | - | 4 | 8 |

A sensitivity analysis on the Group's income for the period assuming a 10% increase and decrease in currency exchange rates for the nine-month periods ended September 30, 2017 and 2016 are as follows:

| | | **September 30, 2017** | | **September 30, 2016** | |
|---|---|---|---|---|---|
| *In millions of won* | | 10% Increase | 10% Decrease | 10% Increase | 10% Decrease |
| Increase (decrease) of income before income tax | ₩ | (31,015) | 31,015 | (50,187) | 50,187 |
| Increase (decrease) of sharholder's equity(*) | | (31,015) | 31,015 | (50,187) | 50,187 |

(*) The tax effect is not considered.

Sensitivity analysis above is conducted for monetary assets and liabilities denominated in foreign currencies other than functional currency as of September 30, 2017 and 2016.

To manage its foreign currency risk related to foreign currency denominated receivables and payables, the Group has a policy to enter into currency swap agreements. In addition, to manage its foreign currency risk related to foreign currency denominated expected sales transactions and purchase transactions, the Group enters into cross-currency forward agreements.

## 38. Risk Management, Continued

(2) Financial risk management, continued

3) Sensitivity analysis, continued

b) Management judgment effected by uncertainties in underlying assumptions, continued

② Interest rate risk

The Group is exposed to interest rate risk due to its borrowing with floating interest rates. A 1% increase or decrease is used when reporting interest rate risk internally to key management personnel which represents management's assessment of the reasonably possible change in interest rates.

The Group's long-term borrowings and debentures with floating interest rates as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | September 30, 2017 | December 31, 2016 |
|---|---|---|---|
| Current portion of long-term borrowings | ₩ | 339 | 366 |
| Long-term borrowings | | 106,568 | 56,985 |
| Current portion of debentures | | - | 120,850 |
| | ₩ | 106,907 | 178,201 |

A sensitivity analysis on the Group's long-term borrowings and debentures assuming a 1% increase and decrease in interest rates for the nine-month periods ended September 30, 2017 and 2016 are as follows:

| | | September 30, 2017 | | September 30, 2016 | |
|---|---|---|---|---|---|
| *In millions of won* | | 1% Increase | 1% Decrease | 1% Increase | 1% Decrease |
| Increase (decrease) of income before income tax | ₩ | (802) | 802 | (1,253) | 1,253 |
| Increase (decrease) of sharholder's equity(*) | | (802) | 802 | (1,253) | 1,253 |

(*) The tax effect is not considered.

The Group enters into certain interest rate swap agreements to manage its interest rate risks in addition to maintaining an appropriate mix of fixed and floating rate borrowings.

## 38. Risk Management, Continued

(2) Financial risk management, continued

4) Liquidity risk

The Group has established an appropriate liquidity risk management framework for the management of the Group's short, medium and long-term funding and liquidity management requirements. The Group manages liquidity risk by maintaining adequate reserves, banking facilities and reserve borrowing facilities, by continuously monitoring forecast and actual cash flows, and by matching the maturity profiles of financial assets and liabilities.

In addition, the Group has established credit lines on its trade financing and bank overdrafts, and through payment guarantees it has received, it maintains an adequate credit (borrowing) line. In addition, in case of major construction investment, the Group has the ability to use cash reserves or utilize long-term borrowings.

Details of remaining maturities of the Group's non-derivative financial liabilities based on agreement terms are as follows. The amount disclosed below represents the undiscounted cash flows that the Group is obligated to pay in the future based on the earliest repayment date:

(i) As of September 30, 2017

| *In millions of won* | | Less than 1 year | 1-2 years | 2-5 years | More than 5 years | Total |
|---|---|---|---|---|---|---|
| Borrowings and debentures | ₩ | 986,309 | 594,435 | 1,618,515 | 2,447,313 | 5,646,572 |
| Trade and other payables | | 476,222 | 21,282 | 528 | - | 498,032 |
| | ₩ | 1,462,531 | 615,717 | 1,619,043 | 2,447,313 | 6,144,604 |

(ii) As of December 31, 2016

| *In millions of won* | | Less than 1 year | 1-2 years | 2-5 years | More than 5 years | Total |
|---|---|---|---|---|---|---|
| Borrowings and debentures | ₩ | 901,823 | 843,024 | 1,730,011 | 2,094,431 | 5,569,289 |
| Trade and other payables | | 529,393 | 19,366 | 287 | - | 549,046 |
| Financial guarantee liabilities | | 160,247 | - | - | - | 160,247 |
| | ₩ | 1,591,463 | 862,390 | 1,730,298 | 2,094,431 | 6,278,582 |

## 38. Risk Management, Continued

(2) Financial risk management, continued

4) Liquidity risk, continued

As the Group manages its liquidity based on net assets and net liabilities, the information of non-derivative financial assets is included in the below analysis.

The expected maturities for non-derivative financial assets as of September 30, 2017 and December 31, 2016 in details are as follows:

(i) As of September 30, 2017

| *In millions of won* | | Less than 1 year | 1-5 years | More than 5 years | Uncertain | Total |
|---|---|---|---|---|---|---|
| Cash and cash equivalents | ₩ | 183,929 | - | - | - | 183,929 |
| Financial instruments | | 158,056 | 10,152 | - | - | 168,208 |
| Available-for-sale financial assets | | - | - | - | 92,078 | 92,078 |
| Loans | | 8,354 | 19,189 | 43,505 | - | 71,048 |
| Trade and other receivables | | 430,006 | 22,410 | - | - | 452,416 |
| | ₩ | 780,345 | 51,751 | 43,505 | 92,078 | 967,679 |

(ii) As of December 31, 2016

| *In millions of won* | | Less than 1 year | 1-5 years | More than 5 years | Uncertain | Total |
|---|---|---|---|---|---|---|
| Cash and cash equivalents | ₩ | 320,431 | - | - | - | 320,431 |
| Available-for-sale financial assets | | - | - | - | 96,276 | 96,276 |
| Loans | | 1,291 | 9,302 | 4,543 | - | 15,136 |
| Trade and other receivables | | 551,851 | 17,962 | - | - | 569,813 |
| | ₩ | 873,573 | 27,264 | 4,543 | 96,276 | 1,001,656 |

Derivative financial liabilities classified by maturity periods from reporting date to maturity date of contracts as of September 30, 2017 are as follows:

| *In millions of won* | | Less than 1 year | 1-2 years | 2-5 years | More than 5 years | Total |
|---|---|---|---|---|---|---|
| Gross settlement -Trading purpose | ₩ | 2 | - | - | - | 2 |

## 38. Risk Management, Continued

(3) Fair value risk

The fair value of the Group's actively-traded financial instruments (e.g. available-for-sale financial assets, etc.) is based on the traded market-price as of the reporting period end. The fair value of the Group's financial assets is the amount which the asset could be exchanged for or the amount a liability could be settled for.

The fair values of financial instruments where no active market exists or where quoted prices are not otherwise available are determined by using valuation techniques. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, reference to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models. If there is a valuation technique commonly used by market participants to price the instrument and that technique has been demonstrated to provide reliable estimates of prices obtained in actual market transactions, the Group uses that technique.

For trade receivables and payables, the Group considers the carrying value, net of impairment, as fair value. While for disclosure purposes, the fair value of financial liabilities is estimated by discounting a financial instrument with similar contractual cash flows using the effective interest method.

1) Fair and book value of financial assets and liabilities as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | **September 30, 2017** | | **December 31, 2016** | |
|---|---|---|---|---|---|
| | | Book value | Fair value | Book value | Fair value |
| Assets recognized at fair value | | | | | |
| Available-for-sale financial assets | ₩ | 92,078 | 92,078 | 96,276 | 96,276 |
| Derivatives assets (trading) | | 568 | 568 | 1,424 | 1,424 |
| Derivatives assets (hedge accounting) | | 17,423 | 17,423 | 46,319 | 46,319 |
| Other derivative assets | | 1,705 | 1,705 | 1,705 | 1,705 |
| | ₩ | 111,774 | 111,774 | 145,724 | 145,724 |
| Assets carried at amortized cost | | | | | |
| Loans | ₩ | 68,784 | 68,784 | 15,000 | 15,000 |
| Trade and other receivables | | 452,066 | 452,066 | 569,428 | 569,428 |
| Financial instruments | | 168,208 | 168,208 | - | - |
| Cash and cash equivalents | | 183,929 | 183,929 | 320,431 | 320,431 |
| | ₩ | 872,987 | 872,987 | 904,859 | 904,859 |
| Liabilities carried at fair value | | | | | |
| Derivatives liabilities (trading) | ₩ | 2 | 2 | - | - |
| Liabilities carried at amortized cost | | | | | |
| Debentures | ₩ | 4,477,053 | 4,581,477 | 4,585,899 | 4,868,388 |
| Unsecured borrowings | | 291,907 | 291,907 | 192,351 | 192,351 |
| Trade and other payables | | 498,003 | 498,003 | 549,000 | 549,000 |
| | ₩ | 5,266,963 | 5,371,387 | 5,327,250 | 5,609,739 |

2) The discount rate used for calculating fair value is derived from interest rates which are observable from the market, such as government bond interest rate, after considering credit spread. The discount rate used for calculating fair value as of September 30, 2017 and December 31, 2016 are as follows:

| | **September 30, 2017** | **December 31, 2016** |
|---|---|---|
| Derivatives | 1.05%~2.01% | 0.87%~1.74% |
| Borrowings and debentures | 2.05%~2.53% | 1.49%~1.64% |

## 38. Risk Management, Continued

(3) Fair value risk, continued

3) Fair value hierarchy

The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value, classified as Level 1, 2, or 3, based on the degree to which the fair value is observable.

- Level 1 : Unadjusted quoted prices in active markets for identical assets or liabilities
- Level 2 : Inputs other than quoted prices that are observable for the asset or liability either directly or indirectly
- Level 3 : Inputs that are not based on observable market data

Fair values of financial instruments by hierarchy level as of September 30, 2017 and December 31, 2016, respectively, are as follows:

(i) As of September 30, 2017

| *In millions of won* | | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|---|
| Financial assets at fair value: | | | | | |
| Available-for-sale financial assets | ₩ | 67,840 | - | 16,060 | 83,900 |
| Derivative assets | | - | 17,991 | 1,705 | 19,696 |
| | | 67,840 | 17,991 | 17,765 | 103,596 |
| Financial liability at fair value: | | | | | |
| Derivative liabilities | | - | (2) | - | (2) |
| | ₩ | 67,840 | 17,989 | 17,765 | 103,594 |

(ii) As of December 31, 2016

| *In millions of won* | | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|---|
| Financial assets at fair value: | | | | | |
| Available-for-sale financial assets | ₩ | 71,840 | - | 16,455 | 88,295 |
| Derivative assets | | - | 47,743 | 1,705 | 49,448 |
| | ₩ | 71,840 | 47,743 | 18,160 | 137,743 |

Changes in Level 3 financial assets for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016, respectively, are as follows:

| *In millions of won* | | **September 30, 2017** | **December 31, 2016** |
|---|---|---|---|
| Beginning balance | ₩ | 18,160 | 12,811 |
| Valuation | | (395) | 5,349 |
| Ending balance | ₩ | 17,765 | 18,160 |

## 39. Related Party Transactions

(1) The nature of the Group's relationship with related parties as of September 30, 2017 is as follows:

| Control relationship | Related party |
|---|---|
| Parent company | Korea Electric Power Corporation |
| Associates | Taebaek Wind Power Co., Ltd.<br>TaebaekGuinemi Wind Power Co., Ltd.<br>PyeongChang Wind Power Co., Ltd.<br>Daeryun Power Co., Ltd.<br>Changjuk Wind Power Co., Ltd.<br>KNH Solar Co., Ltd.<br>Korea Offshore Wind Power Co., Ltd.<br>Hadong Mineral Fiber Co., Ltd.<br>Jeongam Wind Power Co., Ltd.<br>Korea Power Engineering Co., Ltd.<br>Naepo Green Energy Co., Ltd.<br>Samcheok Eco Materials Co., Ltd.<br>Solar School Plant Co., Ltd.<br>KEPCO Energy Solution Co., Ltd. |
| Joint ventures | Daegu Green Power Co., Ltd.<br>Daejung Offshore Wind Power Co., Ltd.<br>Daehan Wind Power PSC<br>Kelar S.A.<br>Chester Solar IV SpA<br>Chester Solar V SpA<br>Diego de Almagro Solar SpA |
| Other related companies | Korea South-East Power Co., Ltd.<br>Korea Western Power Co., Ltd.<br>Korea Midland Power Co., Ltd.<br>Korea East-West Power Co., Ltd.<br>KEPCO KDN Co., Ltd.<br>Korea Gas Corporation<br>Korea Electronic Power Industrial Development Co., Ltd.<br>Korea Power Exchange<br>KEPCO KPS Co., Ltd.<br>KEPCO Engineering & Construction Inc.<br>Korea Hydro & Nuclear Power Co., Ltd.<br>Korea Development Bank<br>DS Power Co., Ltd.<br>HeeMang Sunlight Power Co., Ltd.<br>Others |

## 39. Related Party Transactions, Continued

(2) All transactions between KOSPO and its consolidated subsidiaries are eliminated upon consolidation, and transactions with related parties other than subsidiaries for the nine-month periods ended September 30, 2017 and 2016 are as follows:

*In millions of won*

| Related parties | Transaction type | Sales and others | | Purchase and others | |
|---|---|---|---|---|---|
| | | **September 30, 2017** | **September 30, 2016** | **September 30, 2017** | **September 30, 2016** |
| Korea Electric Power Corporation | Power sales and others | ₩ 3,340,620 | 2,956,145 | 31,499 | 43,268 |
| Daegu Green Power Co., Ltd. | Service revenue | 64 | - | - | - |
| Kelar S.A. | Service revenue | 454 | 1,640 | - | - |
| KNH Solar Co., Ltd. | REC purchase | - | - | 2,162 | 2,222 |
| Changjuk Wind Power Co., Ltd. | Service revenue/ REC purchase and others | 604 | 694 | 2,569 | 1,784 |
| Taebaek Wind Power Co., Ltd. | Service revenue/ REC purchase | 578 | 569 | 2,644 | 1,834 |
| PyeongChang Wind Power Co., Ltd. | Service revenue/ REC purchase | 850 | 452 | 3,443 | 1,007 |
| KS Solar Co., Ltd. | REC purchase | - | - | 558 | 2,244 |
| Korea Power Engineering Service Co., Ltd. | Dividends income/ Repairing expenses and others | 191 | 582 | 775 | 490 |
| Korea South-East Power Co., Ltd. | Miscellaneous income/ Commission and others | 25 | 29 | 4 | - |
| Korea East-West Power Co., Ltd. | Miscellaneous income/ Commission and others | 100 | 29 | 155 | 12 |
| Korea Midland Power Co., Ltd. | Miscellaneous income/ Loss and others | 153 | 29 | 71 | - |
| Korea Western Power Co., Ltd. | Rental income /Rental expense and others | 183 | 659 | 1,500 | 3,731 |
| Korea Electronic Power Industrial Development Co., Ltd. | Rental income/ Service cost and others | 214 | 181 | 25,530 | 23,975 |
| KEPCO KDN Co., Ltd. | Repairing expenses and others | - | - | 8,169 | 13,027 |
| KEPCO KPS Co., Ltd. | Rental income/ Repairing expenses and others | 387 | 375 | 48,661 | 49,732 |
| Korea Gas Corporation | LNG purchase | 21 | - | 702,450 | 857,484 |
| Korea Power Exchange | Power trading fee and others | - | - | 26,712 | 3,410 |
| KEPCO Engineering & Construction Inc. | Purchasing property and others | - | - | 4,877 | 11,844 |
| KEPCO Energy Solution Co., Ltd. | Service revenue | 81 | - | - | - |
| Samcheok Eco Materials Co., Ltd. | Service cost | - | - | 3 | - |

## 39. Related Party Transactions, Continued

(3) Receivables and payables arising from related party transactions as of September 30, 2017 and December 31, 2016 are as follows:

(i) As of September 30, 2017

*In millions of won*

| Related parties | Transaction type | | Receivables | Payables |
|---|---|---|---|---|
| Korea Electric Power Corporation | Trade receivables | ₩ | 310,242 | - |
| | Non-trade receivables | | 100,360 | - |
| | Other payables | | - | 1,793 |
| Changjuk Wind Power Co., Ltd. | Trade receivables | | 93 | - |
| Taebaek Wind Power Co., Ltd. | Trade receivables | | 101 | - |
| Korea Midland Power Co., Ltd. | Other payables | | - | 23 |
| Korea Western Power Co., Ltd. | Non-trade receivables | | 21 | - |
| | Other payables | | - | 532 |
| KEPCO KPS Co., Ltd. | Non-trade receivables | | 7 | - |
| | Other payables | | - | 329 |
| Korea Power Exchange | Other payables | | - | 82 |
| Korea Gas Corporation | Trade payables | | - | 62,654 |
| KEPCO Energy Solution Co., Ltd. | Trade receivables | | 32 | - |

(ii) As of December 31, 2016

*In millions of won*

| Related parties | Transaction type | | Receivables | Payables |
|---|---|---|---|---|
| Korea Electric Power Corporation | Trade receivables | ₩ | 464,045 | - |
| | Non-trade receivables | | 73,734 | - |
| | Other payables | | - | 815 |
| Changjuk Wind Power Co., Ltd. | Trade receivables | | 100 | - |
| | Other payables | | - | 334 |
| Taebaek Wind Power Co., Ltd. | Trade receivables | | 112 | - |
| | Other payables | | - | 304 |
| PyeongChang Wind Power Co., Ltd. | Other payables | | - | 255 |
| KNH Solar Co., Ltd. | Other payables | | - | 204 |
| Korea East-West Power Co., Ltd. | Non-trade receivables | | 95 | - |
| Korea Midland Power Co., Ltd. | Other payables | | - | 135 |
| Korea Western Power Co., Ltd. | Other payables | | - | 627 |
| Korea Electronic Power Industrial Development Co., Ltd. | Other payables | | - | 1,406 |
| KEPCO KDN Co., Ltd. | Other payables | | - | 1,362 |
| KEPCO KPS Co., Ltd. | Other payables | | - | 4,312 |
| Korea Power Exchange | Other payables | | - | 3 |
| Korea Gas Corporation | Trade payables | | - | 123,762 |
| KEPCO Energy Solution Co., Ltd. | Trade receivables | | 39 | - |

## 39. Related Party Transactions, Continued

(4) Loans arising from related party transactions for the nine-month period ended September 30, 2017 and for the year ended December 31, 2016 is as follows:

| *In millions of won* | | Beginning balance | Loans | Repayment | Others | Ending balance |
|---|---|---|---|---|---|---|
| Short-term loans | | | | | | |
| Daehan Wind Power PSC | ₩ | 683 | 640 | - | - | 1,323 |
| Kelar S.A. | | - | 3,568 | (3,568) | 4,452 | 4,452 |
| | | 683 | 4,208 | (3,568) | 4,452 | 5,775 |
| Long-term loans | | | | | | |
| Kelar S.A. | | - | 51,062 | - | (1,541) | 49,521 |
| | ₩ | 683 | 55,270 | (3,568) | 2,911 | 55,296 |

(5) Guarantees and pledged assets provided to related parties as of September 30, 2017 are as follows:

1) Provided guarantees

*In thousands of USD*

| Primary guarantor | Received Company | Type of guarantees | | Credit limit | Guarantee |
|---|---|---|---|---|---|
| Korea Southern Power Co., Ltd. | Kelar S.A. | Guarantees for supplemental funding | $ | 13,000 | KEB Hana Bank |
| | | | | 16,250 | KEB Hana Bank |
| | | | | 39,000 | SMBC, Mizuho Bank, BTMU, Natixis |

2) Pledged assets

*In millions of won*

| Primary guarantor | Secondary guarantor | Type of guarantees | | Acquisition cost | Guarantee |
|---|---|---|---|---|---|
| Korea Southern Power Co., Ltd. | Daegu Green Power Co., Ltd. | Collateralized money invested | ₩ | 46,226 | Shinhan Bank |
| | Daeryun Power Co., Ltd. | Collateralized money invested | | 25,477 | Korea Development Bank and others |
| | Changjuk Wind Power Co., Ltd. | Collateralized money invested | | 3,801 | Woori Bank, Shinhan Bank |
| | PyeongChang Wind Power Co., Ltd. | Collateralized money invested | | 3,875 | Woori Bank, Shinhan Bank |
| | KNH Solar Co., Ltd. | Collateralized money invested | | 1,296 | Shinhan Bank, Kyobo Life insurance Co., Ltd. |
| | DS Power Co., Ltd. | Collateralized money invested | | 2,900 | Korea Development Bank and others |
| | Jeongam Wind Power Co., Ltd. | Collateralized money invested | | 5,580 | SK Securities Co., Ltd. |
| | Naepo Green Energy Co., Ltd. | Collateralized money invested | | 29,200 | Hana Financial Investment Co., Ltd. |

## 39. Related Party Transactions, Continued

(5) Guarantees and pledged assets provided to related parties as of September 30, 2017 are as follows, continued:

3) Guarantees for supplemental funding, (etc.)

① Taebaek Wind Power Co., Ltd. has been promoting the wind power plant construction business in Samcheok and Taebaek city and has received loan fundings from financial institutions. If the reserve balances for repayment of principal and interest based on the loan agreements are insufficient, each investor in Taebaek Wind Power Co., Ltd., including the Group, has to provide financial support by way of a subordinated loan to the extent of ₩1 billion a year, based on each investor's proportionate investment.

② Daeryun Power Co., Ltd. is currently constructing a wind power plant facility in YangJu Okjung, HeaChun, which is financed by financial institutions.

Each investor in Daeryun Power Co., Ltd., including the Group, is obligated to provide funds by way of additional investment or subordinated loan up to ₩8 billion, based on each investor's proportionate investment, if excess investment costs occur when combined heat and power generation plants or related plants are in construction, or the reserve balance for investment is insufficient due to a change in a schedule or an influx of construction costs, or benefit of time is forfeited. Other investors have the obligation to pay acquisition costs of dissenting investors if Daeryun Power Co., Ltd. merges.

The Daeryun Power's shareholders hold call options to purchase the common stocks which were converted from the subordinated loan commitments. On the other hand, financial investors hold put options to sell the shares to Daeryun Power's shareholders. The put options are currently exercisable and if the put options are not exercised until the expiration date, the put options are deemed exercised on that date. Therefore, the Group is deemed to have acquired the common stocks amounting to ₩18,645 million converted from subordinated loan commitments.

③ Changjuk Wind Power Co., Ltd. is currently constructing a wind power plant facility in Taebaek and the Group has financed the project through loans from financial institutions. Each investor in Changjuk Wind Power Co., Ltd., including the Group, is obligated to provide funds by way of a subordinated loan to the extent of ₩300 million a year, based on each investor's proportionate investment if a cash shortage for repayment of principal and interest based on the loan agreement occurs.

④ KNH Solar Co., Ltd. has obtained loans from financial institutions for the construction of a solar power plant and the generation and sale of electricity. Each investor, including the Group, is obligated to fulfill the obligation owed by KNH Solar Co., Ltd. based on each investor's proportionate investment if construction investors of KNH Solar Co., Ltd. do not fulfill their obligations that guarantee the average electricity supply per day and secure business land.

⑤ DS Power Co., Ltd. is currently conducting an energy supply business project and has obtained necessary loans from financial institutions. If the excess investment costs occur, the Group is obligated to provide funds by way of subordinated loan based on each investor's proportionate investment in accordance of the loan agreement. Also, investors including the Group have to compensate for damages if construction is not completed within the pre-determined period.

Daesung Industrial Co., Ltd. has a call option to purchase the shares of the DS Power Co., Ltd. which the Group owned. With regard to the call option, Daesung Industrial Co., Ltd. or 3rd party who designated by Daesung Industrial Co., Ltd. can purchase the shares. On the other hand, the Group has a put option to sell the shares of the DS Power Co., Ltd. to Daesung Industrial Co., Ltd.. The fair value of put option is ₩1,705 million as of September 30, 2017 and the Group has recognized the put option as derivative assets.

## 39. Related Party Transactions, Continued

(5) Guarantees and pledged assets provided to related parties as of September 30, 2017 are as follows, continued:

3) Guarantees for supplemental funding, (etc.), continued

⑥ PyeongChang Wind Power Co., Ltd. is currently conducting an energy supply business project and has obtained necessary loans from financial institutions. If the excess construction costs occur, investors are obligated to provide funds by way of additional investment or subordinated loan based on each investor's proportionate investment in accordance with the loan agreement. If PyeongChang Wind Power Co., Ltd. enters into an O&M agreement with Korea Power Engineering Co., Ltd. which is an associate of the Group, the Group is required to provide a performance guarantee for the contract.

⑦ Jeongam Wind Power Co., Ltd. is constructing a wind power plant facility in Jeongseon and has obtained necessary loans from financial institutions. If the excess construction costs occur, investors are obligated to provide funds by way of additional investment or subordinated loan based on each investor's proportionate investment in accordance with the loan agreement. Also, the Group is required to perform an O&M service under the agreement during the operation period.

⑧ Naepo Green Energy Co., Ltd. is currently conducting an energy supply business project and has obtained necessary loans from financial institutions. If the excess construction costs occur, investors are obligated to provide funds by way of additional investment or subordinated loan based on each investor's proportionate investment in accordance with the loan agreement.

(6) Salaries and other compensations to the key members of management for the nine-month periods ended September 30, 2017 and 2016 are as follows:

| *In millions of won* | | September 30, 2017 | | September 30, 2016 | |
|---|---|---|---|---|---|
| | | Three-month period ended | Nine-month period ended | Three-month period ended | Nine-month period ended |
| Salaries | ₩ | 309 | 530 | 335 | 603 |
| Retirement and severance benefits | | 18 | 35 | - | - |
| | | 327 | 565 | 335 | 603 |

## 40. Non-cash Transactions

Significant non-cash transactions for the nine-month periods ended September 30, 2017 and 2016 are as follows:

| *In millions of won* | | September 30, 2017 | September 30, 2016 |
|---|---|---|---|
| Reclassification of long-term borrowings to current portion | ₩ | 339 | 374 |
| Reclassification of long-term debentures to current portion | | 692,550 | 586,793 |
| Reclassification of construction-in-progress | | 1,364,860 | 61,305 |
| Reclassification of long-term other payables to current portion | | - | 167 |
| Change of other payables according to acquisition of property, plant and equipment | | - | 20,883 |

## 41. Commitments and Contingencies

(1) Ongoing litigations as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won, except number of cases* | Number of cases | | Claim amount | |
|---|---|---|---|---|
| | **September 30, 2017** | **December 31, 2016** | **September 30, 2017** | **December 31, 2016** |
| Ongoing litigations-defendant(a) | 31 | 27 | 61,401 | 67,557 |
| Ongoing litigations-plaintiff(b) | 3 | 2 | 160,855 | 160,805 |

(a) The details of ongoing litigations-defendant as of September 30, 2017 are as follows:

*In millions of won*

| Courthouse | Plaintiff | Defendant | Contents | Amount of litigation | Progress |
|---|---|---|---|---|---|
| Busan high court | Individuals | KOSPO | Compensation for damage | ₩ 3,695 | Pending |
| Supreme count of Korea(*1) | Individuals | KOSPO and 4 Electric Power Corporations | Wage | 19,230 | Pending |
| Supreme count of Korea(*1) | Individuals | KOSPO | Wage | 9,649 | Pending |
| Seoul high court(*1) | Individuals | KOSPO and 4 Electric Power Corporations | Wage | 8,935 | Pending |
| Seoul central district court(*1) | Individuals | KOSPO | Wage | 9,999 | Pending |
| Seoul central district court, etc.(*1) | Individuals, etc. | KOSPO, etc. | Compensation for damage, etc. | 9,893 | Pending |

(*1) As of September 30, 2017, the Group recognized ₩5,166 million as provision in reference to the above litigations. However, for other litigations except for the litigations with provision, the management does not believe that the outcome of the litigations will have a significant impact on business practice and financial statements.

(b) The details of ongoing litigations-plaintiff as of September 30, 2017 are as follows:

*In millions of won*

| Courthouse | Plaintiff | Defendant | Contents | Amount of litigation | Progress |
|---|---|---|---|---|---|
| Seoul central district court | KOSPO | Hyundai engineering & Construction Co., Ltd., etc | Liquidated damages for delay | ₩ 160,742 | Pending |
| Seoul central district court, etc. | KOSPO | Seoul guarantee insurance company, etc. | Insurance, etc. | 113 | Pending |

In 2016, Hyundai engineering & Construction Co., Ltd., GS Engineering & Construction Corp. and Hansol SeenTec Co., Ltd. filed a request for arbitration against the Company because of additional construction costs. The arbitration request was filed in the Korean Commercial Arbitration Board but the Group has not recognized any provision as the probability of economic benefit outflow is remote and the related amount cannot be reliably estimated.

(2) There are no guarantees provided to third parties as of September 30, 2017.

## 41. Commitments and Contingencies, Continued

(3) Credit lines provided by financial institutions as of September 30, 2017 are as follows:

*In millions of won, In thousands of USD*

| Description | Financial institutions | Currency | Credit limit |
|---|---|---|---|
| Commitments on Bank-overdraft | KEB Hana Bank | KRW | 25,000 |
| | Nonghyup Bank | KRW | 50,000 |
| | Kookmin Bank | KRW | 50,000 |
| Loan limit | KEB Hana Bank | USD | 15,100 |
| | Mizuho Bank | USD | 50,000 |
| | BNP Paribas | USD | 30,000 |
| | Korea Development Bank | USD | 50,000 |
| | SMBC | USD | 50,000 |
| | Nonghyup Bank | USD | 50,000 |
| | Industrial and Commercial Bank of China Limited | USD | 70,000 |
| | Shinhan Bank | KRW | 60,100 |
| | Shinhan Life insurance Co., Ltd. | KRW | 45,000 |
| | Kyobo Life insurance Co., Ltd. | KRW | 35,000 |
| | Nonghyup Life insurance Co., Ltd. | KRW | 30,000 |
| | National Credit Union Federation of Korea | KRW | 20,000 |
| | Nonghyup Bank | KRW | 60,000 |
| | Shinhan BNP Paribas ITMC Co., Ltd. | KRW | 80,000 |
| Certification of payment on L/C | Shinhan Bank(*) | KRW | 23,104 |
| | Woori Bank | USD | 20,000 |
| | Nonghyup Bank | USD | 20,000 |
| | Shinhan Bank | USD | 50,000 |
| | Kookmin Bank | USD | 50,000 |
| Others | Nonghyup Bank | KRW | 50,000 |
| Inclusive credit | Credit Agricole | USD | 50,000 |
| | DBS | USD | 100,000 |
| | Societe Generale | USD | 50,000 |

(*) The Group was provided with a guarantee of ₩198 million from Daewoo Engineering & Construction Co., Ltd. for some of its commitments.

(4) As of September 30, 2017, assets provided as collaterals to financial institutions by the Group are follows:

*In millions of won*

| Guarantor | Guarantee | Type of guarantee | Amount | Description |
|---|---|---|---|---|
| Korea Southern Power Co., Ltd. | Shinhan Bank, etc. | Shareholdings of KOSPO Youngnam Power Co., Ltd. | 40,000 | Collateral for borrowings(*) |
| KOSPO Youngnam Power Co., Ltd. | Shinhan Bank, etc. | Cash and cash equivalents, etc. | 396,120 | Collateral for borrowings(*) |

(*) The Company provided shares of KOSPO Youngnam Power Co., Ltd., one of its subsidiaries, as collateral related to borrowings. Additionally, pledge for insurance claims, pledge for deposits and other pledges were established.

## 41. Commitments and Contingencies, Continued

(5) Details of long-term marine transportation commitments for the safe transportation of bituminous coal as of September 30, 2017 are as follows:

| Company | Marine transportation | Contract periods |
|---|---|---|
| SK Shipping Co., Ltd. | K-Faith | 2009.12 ~ 2024.11 |
| Pan Ocean Co., Ltd. | Pan champion, etc. | 2010.09 ~ 2029.07 |
| SW Shipping Co., Ltd. | Sea Honesty | 2014.04 ~ 2029.03 |
| Korea Line Corporation | Adonis, etc. | 2005.07 ~ 2026.06 |
| Korea Shipping Corporation | Power Loong | 2007.10 ~ 2017.09 |
| H-LINE Co., Ltd. | Roberts bank, etc. | 2008.09 ~ 2034.12 |
| Woo Yang Shipping Co., Ltd. | Banders | 2015.06 ~ 2025.05 |
| Unico Logistics Co., Ltd. | Stella | 2016.06 ~ 2028.06 |

(6) Purchase commitments relating to bituminous coal and other raw materials as of September 30, 2017 are as follows:

| Materials | Supplier | Contract periods | Amount (thousand tons) |
|---|---|---|---|
| Coal | Australia : | | |
| | NCA Marketing Company Pty Ltd | 2001~2018 | 800 |
| | BHP Billiton Marketing AG | 2005~2018 | 552 |
| | Moolarben Coal Sales Pty Limited | 2009~2027 | 625 |
| | Macquarie Bank Ltd | 2013~2018 | 276 |
| | Noble Resources International Pte Ltd | 2015~2019 | 414 |
| | Noble Resources International Pte Ltd | 2015~2019 | 414 |
| | Trafigura Pte Ltd | 2017~2019 | 290 |
| | Trafigura Pte Ltd | 2017~2019 | 532 |
| | Whitehaven | 2013~2017 | 540 |
| | Vitol | 2016~2018 | 133 |
| | Russia : | | |
| | SUEK AG | 2012~2017 | 260 |
| | SUEK AG | 2016~2018 | 290 |
| | Carbo One | 2016~2018 | 145 |
| | Indonesia : | | |
| | PT.Indominco Mandiri | 2004~2017 | 500 |
| | PT.Berau coal | 2008~2018 | 500 |
| | MSJ | 2004~2018 | 500 |
| | Korea Polymer | 2017~2019 | 222 |
| | KCH Energy Co., Ltd. | 2015~2019 | 480 |
| | Glencore International AG | 2015~2019 | 960 |
| | AVRA Commodities Pte Ltd | 2015~2020 | 320 |
| | Mercuria Energy Trading Pte Ltd | 2016~2018 | 560 |
| | KCH Energy Co., Ltd. | 2017~2020 | 320 |
| | SUEK AG | 2017~2020 | 320 |
| | Republic of South Africa : | | |
| | Anglo American | 2017~2019 | 290 |
| | USA : | | |
| | Light House | 2012~2017 | 500 |
| | Cloud Peak Energy Logistics LLC | 2011~2018 | 300 |
| LNG | Korea : | | |
| | Korea Gas Corporation | 2006~2026 | Annual consultation |

## 41. Commitments and Contingencies, Continued

(7) Commitments for acquisition of property, plant and equipment as of September 30, 2017 and December 31, 2016 are as follows:

| *In millions of won* | | **September 30, 2017** | | **December 31, 2016** | |
|---|---|---|---|---|---|
| Description | | Contracted | Residual | Contracted | Residual |
| Architectural engineering of Samcheok #1, 2 and others | ₩ | 2,389,815 | 152,251 | 2,355,945 | 226,074 |

# Independent Auditors' Report

The Board of Directors and Shareholder
Korea Southern Power Co., Ltd.:

We have audited the accompanying consolidated financial statements of Korea Southern Power Co., Ltd. and its subsidiaries (the "Group"), which comprise the consolidated statements of financial position as at December 31, 2016 and 2015, the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

**Management's Responsibility for the Consolidated Financial Statements**
Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Korean International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

**Auditors' Responsibilities**
Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Korean Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessment, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements 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 entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

**Opinion**
In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at December 31, 2016 and 2015 and of its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean International Financial Reporting Standards.

**Other Matter**
The procedures and practices utilized in the Republic of Korea to audit such consolidated financial statements may differ from those generally accepted and applied in other countries.

KPMG Samjong Accounting Corp.

Seoul, Korea
March 2, 2017

This report is effective as of March 2, 2017, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

## KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES
## Consolidated Statements of Financial Position
**As of December 31, 2016 and 2015**

| *In millions of won* | Note | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|---|
| **Assets** | | | | |
| Cash and cash equivalents | 6,7,8,40 | ₩ | 320,431 | 182,151 |
| Current financial assets | 8,11,12,13,40 | | 14,952 | 20,796 |
| Trade and other receivables | 8,9,15,40,41 | | 551,786 | 442,489 |
| Inventories | 14 | | 246,423 | 144,860 |
| Current non-financial assets | 16 | | 122,957 | 33,816 |
| **Total current assets** | | | 1,256,549 | 824,112 |
| Non-current financial assets | 8,10,11,12,40 | | 145,772 | 58,330 |
| Non-current trade and other receivables | 8,9,15,40 | | 17,642 | 11,147 |
| Property, plant and equipment | 5,19,25 | | 8,427,591 | 8,157,918 |
| Intangible assets | 5,20 | | 24,763 | 24,931 |
| Investments in associates and joint ventures | 5,18,41 | | 179,652 | 170,317 |
| Non-current non-financial assets | 5,16 | | 13,822 | 13,701 |
| **Total non-current assets** | | | 8,809,242 | 8,436,344 |
| **Total assets** | | ₩ | 10,065,791 | 9,260,456 |

*See accompanying notes to the consolidated financial statements.*

## KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES
## Consolidated Statements of Financial Position, Continued
**As of December 31, 2016 and 2015**

| *In millions of won* | Note | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|---|
| **Liabilities** | | | | |
| Trade and other payables | 8,21,40,41 | ₩ | 529,371 | 336,097 |
| Current financial liabilities | 8,11,22,40 | | 770,907 | 480,454 |
| Income tax payables | 37 | | 103,498 | 34,063 |
| Current non-financial liabilities | 26 | | 24,477 | 18,481 |
| Current provisions | 24,40,43 | | 61,300 | 70,295 |
| **Total current liabilities** | | | 1,489,553 | 939,390 |
| Non-current trade and other payables | 8,21,40 | | 19,629 | 24,453 |
| Non-current financial liabilities | 8,22,40 | | 4,007,343 | 4,253,534 |
| Employee benefits obligations, net | 23,40 | | 83,636 | 58,307 |
| Deferred tax liabilities, net | 37 | | 259,459 | 273,809 |
| Non-current provisions | 24,40 | | - | 425 |
| **Total non-current liabilities** | | | 4,370,067 | 4,610,528 |
| **Total liabilities** | | | 5,859,620 | 5,549,918 |
| **Equity** | | | | |
| Share capital | 27 | | 1,854,008 | 1,773,522 |
| Retained earnings | 23,28,29 | | 2,313,821 | 1,918,839 |
| Other components of equity | 10,11,30 | | (8,194) | (6,825) |
| **Equity attributable to owners of the Company** | | | 4,159,635 | 3,685,536 |
| **Non-controlling interests** | 17 | | 46,536 | 25,001 |
| **Total equity** | | | 4,206,171 | 3,710,537 |
| **Total liabilities and equity** | | ₩ | 10,065,791 | 9,260,455 |

*See accompanying notes to the consolidated financial statements.*

## KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES
## Consolidated Statements of Comprehensive Income
**For the years ended December 31, 2016 and 2015**

| *In millions of won, except earnings per share information* | Note | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|---|
| Sales | 5,31,41 | ₩ | 4,218,813 | 4,332,692 |
| Cost of sales | 38,41 | | (3,516,375) | (3,885,215) |
| **Gross profit** | | | 702,438 | 447,477 |
| Selling and administrative expenses | 5,19,20,23,32,38, 40,41 | | (99,066) | (77,117) |
| **Operating income** | 5 | | 603,372 | 370,360 |
| Other non-operating income | 24,33,41 | | 9,368 | 13,210 |
| Other non-operating expenses | 24,33 | | (1,834) | (22,353) |
| Other profit (loss), net | 8,34,40 | | (17,894) | (37,035) |
| Finance income | 8,11,35,40 | | 31,683 | 39,582 |
| Finance expenses | 8,10,11,36,40 | | (85,662) | (98,869) |
| Equity method income (loss) of associates | 5,18 | | (11,262) | 90 |
| **Profit before income tax** | | | 527,771 | 264,985 |
| Income tax expense | 5,37 | | (105,223) | (43,534) |
| **Profit for the year** | 5 | | 422,548 | 221,451 |
| **Other comprehensive income (loss):** | | | | |
| **Items that will not be reclassified subsequently to profit or loss** | | | | |
| Defined benefit plan actuarial losses, net of tax | 23,28 | | (9,146) | (548) |
| Share in other comprehensive loss of associates and joint ventures, net of tax | 18,28 | | 1 | (46) |
| **Items that will be reclassified subsequently to profit or loss** | | | | |
| Net change in the unrealized fair value of available-for-sale financial assets, net of tax | 8,10,30,40 | | (3,827) | 503 |
| Net change in the unrealized fair value of derivatives using cash flow hedge accounting, net of tax | 8,11,30 | | 1,853 | 2,351 |
| Share in other comprehensive loss of associates and joint ventures, net of tax | 18,30 | | 82 | (2,660) |
| Foreign currency translation of foreign operations, net of tax | 30 | | 769 | (16) |
| **Total comprehensive income for the year** | | | 412,280 | 221,035 |
| **Profit attributable to** | | | | |
| Owners of the Company | | | 421,976 | 221,450 |
| Non-controlling interests | 17 | | 572 | 1 |
| **Profit for the year** | | | 422,548 | 221,451 |
| **Total comprehensive income attributable to:** | | | | |
| Owners of the Company | | | 411,654 | 221,034 |
| Non-controlling interests | | | 626 | 1 |
| **Total comprehensive income for the year** | | ₩ | 412,280 | 221,035 |
| **Earnings per share** | | | | |
| Basic earnings per share | 39 | ₩ | 9,216 | 4,839 |

*See accompanying notes to the consolidated financial statements.*

## KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES
## Consolidated Statements of Changes in Equity
**For the years ended December 31, 2016 and 2015**

*In millions of won*

| | Equity attributable to owners of the Company | | | | | |
|---|---|---|---|---|---|---|
| | Share capital | Retained earnings | Other components of equity | Subtotal | Non-controlling Interests | Total equity |
| **Balance at January 1, 2015** | ₩ 1,773,522 | 1,708,255 | (7,003) | 3,474,774 | - | 3,474,774 |
| **Total comprehensive income :** | | | | | | |
| Profit for the year | - | 221,450 | - | 221,450 | 1 | 221,451 |
| **Items that will not be reclassified subsequently to profit or loss:** | | | | | | |
| Defined benefit plan actuarial losses, net of tax | - | (548) | - | (548) | - | (548) |
| Share in other comprehensive loss of associates and joint ventures, net of tax | - | (46) | - | (46) | - | (46) |
| **Items that will be reclassified subsequently to profit or loss:** | | | | | | |
| Net changes in the unrealized fair value of available-for-sale financial assets, net of tax | - | - | 503 | 503 | - | 503 |
| Net change in the unrealized fair value of derivatives using cash flow hedge accounting, net of tax | - | - | 2,351 | 2,351 | - | 2,351 |
| Share in other comprehensive loss of associates and joint ventures, net of tax | - | - | (2,660) | (2,660) | - | (2,660) |
| Foreign currency translation of foreign operations, net of tax | - | - | (16) | (16) | - | (16) |
| **Transactions with owners of the Company, recognized directly in equity :** | | | | | | |
| Dividends paid | - | (10,272) | - | (10,272) | - | (10,272) |
| Changes in consolidation scope | - | - | - | - | 25,000 | 25,000 |
| **Balance at December 31, 2015** | ₩ 1,773,522 | 1,918,839 | (6,825) | 3,685,536 | 25,001 | 3,710,537 |

*See accompanying notes to the consolidated financial statements.*

## KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES
## Consolidated Statements of Changes in Equity, Continued
**For the years ended December 31, 2016 and 2015**

*In millions of won*

| | Equity attributable to owners of the Company | | | | | |
|---|---|---|---|---|---|---|
| | Share capital | Retained earnings | Other components of equity | Subtotal | Non-controlling Interests | Total equity |
| **Balance at January 1, 2016** | ₩ 1,773,522 | 1,918,839 | (6,825) | 3,685,536 | 25,001 | 3,710,537 |
| **Total comprehensive income :** | | | | | | |
| Profit for the year | - | 421,976 | - | 421,976 | 572 | 422,548 |
| **Items that will not be reclassified subsequently to profit or loss:** | | | | | | |
| Defined benefit plan actuarial losses, net of tax | - | (9,146) | - | (9,146) | - | (9,146) |
| Share in other comprehensive loss of associates and joint ventures, net of tax | - | 1 | - | 1 | - | 1 |
| **Items that will be reclassified subsequently to profit or loss:** | | | | | | |
| Net changes in the unrealized fair value of available-for-sale financial assets, net of tax | - | - | (3,827) | (3,827) | - | (3,827) |
| Net change in the unrealized fair value of derivatives using cash flow hedge accounting, net of tax | - | - | 1,853 | 1,853 | - | 1,853 |
| Share in other comprehensive loss of associates and joint ventures, net of tax | - | - | 83 | 83 | - | 83 |
| Foreign currency translation of foreign operations, net of tax | - | - | 714 | 714 | 54 | 768 |
| **Transactions with owners of the Company, recognized directly in equity :** | | | | | | |
| Dividends paid | - | (17,849) | - | (17,849) | - | (17,849) |
| Capital increase of subsidiaries | - | - | (192) | (192) | 14,808 | 14,616 |
| Changes in consolidation scope | - | - | - | - | 2 | 2 |
| Investment in kind | 80,486 | - | - | 80,486 | 6,099 | 86,585 |
| **Balance at December 31, 2016** | ₩ 1,854,008 | 2,313,821 | (8,194) | 4,159,635 | 46,536 | 4,206,171 |

*See accompanying notes to the consolidated financial statements*

## KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES
## Consolidated Statements of Cash Flows
**For the years ended December 31, 2016 and 2015**

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| **Cash flows from operating activities** | | | |
| Profit for the year | ₩ | 422,548 | 221,451 |
| Adjustments for: | | | |
| Income tax expense | | 105,223 | 43,534 |
| Interest expense | | 64,161 | 52,991 |
| Interest income | | (5,861) | (4,250) |
| Depreciation | | 501,848 | 517,706 |
| Amortization of intangible assets | | 7,536 | 9,391 |
| Retirement benefit expenses | | 18,586 | 15,883 |
| Loss on disposals of property, plant and equipment and intangible assets, net | | 18,091 | 32,797 |
| Loss on foreign currency translations, net | | 16,210 | 30,013 |
| Gain on valuation of derivatives instruments, net | | (17,728) | (28,986) |
| Gain on transactions of derivative instruments, net | | (2,795) | (2,594) |
| Loss (gain) on disposal of inventories, net | | (19) | 9,789 |
| Loss on impairment of available-for-sale securities | | 1,963 | 12,988 |
| Loss on disposal of financial assets | | - | 60 |
| Equity method loss (income) of associates, net | | 9,437 | (90) |
| Loss on disposal of Investments in associates | | 1,825 | - |
| Gain on assets contributed | | - | (4,485) |
| Compensation and indemnification expense | | - | 16,958 |
| Accrual of provisions | | 31,794 | 28,761 |
| | | 750,271 | 730,466 |
| Changes in: | | | |
| Trade and other receivables | | (87,372) | 144,771 |
| Inventories | | (101,443) | 21,203 |
| Non-financial assets | | (87,441) | (6,413) |
| Trade and other payables | | 152,793 | (283,584) |
| Current derivative liabilities | | 2,661 | 2,677 |
| Non-financial liabilities | | 5,172 | 13,393 |
| Use of current provisions | | (41,215) | (49,598) |
| Payments of retirement benefit obligations | | (8,554) | (11,440) |
| Other long-term employee benefits | | 37 | (82) |
| | | (165,362) | (169,073) |
| Cash generated from operating activities : | | | |
| Interest received | | 4,420 | 2,511 |
| Interest paid | | (145,012) | (139,735) |
| Dividends received | | 188 | 44 |
| Income tax refund (paid) | | (45,835) | 460 |
| | | (186,239) | (136,720) |
| **Net cash provided by operating activities** | ₩ | 821,218 | 646,124 |

*See accompanying notes to the consolidated financial statements.*

## KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES
## Consolidated Statements of Cash Flows, Continued
**For the years ended December 31, 2016 and 2015**

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| **Cash flows from investing activities** | | | |
| Decrease (increase) in short-term financial instruments | ₩ | 20,000 | (20,000) |
| Increase in loans | | (2,897) | (879) |
| Decrease in loans | | 1,418 | - |
| Receipt of financial lease receivables | | 133 | 74 |
| Proceeds from disposals of avilable-for-sale financial assets | | - | 72 |
| Acquisition of avilable-for-sale financial assets | | - | (393) |
| Proceeds from disposal of property, plant and equipment | | 822 | 14,368 |
| Acquisition of property, plant and equipment | | (701,627) | (961,662) |
| Proceeds from disposal of intangible assets | | 260 | - |
| Acquisition of intangible assets | | (4,270) | (285) |
| Receipt of government grants | | - | - |
| Decrease in guarantee deposits | | 6,401 | 13,703 |
| Increase in guarantee deposits | | (6,263) | - |
| Proceeds from disposal of Investments in associates and joint ventures | | 33,548 | - |
| Acquisition of investments in associates and joint ventures | | (54,252) | (880) |
| **Net cash used in investing activities** | | (706,727) | (955,882) |
| **Cash flows from financing activities** | | | |
| Proceeds from borrowings | | 189,000 | 838,000 |
| Repayment of borrowings | | (1,016) | (850,153) |
| Proceeds from debentures | | 319,049 | 578,405 |
| Repayment of debentures | | (480,000) | (100,000) |
| Proceeds from increase in capital | | 14,557 | 25,000 |
| Payment of cash dividends | | (17,849) | (10,272) |
| **Net cash provided by financing activities** | | 23,741 | 480,980 |
| **Net increase (decrease) in cash and cash equivalents** | | 138,232 | 171,222 |
| Cash and cash equivalents at beginning of the period | | 182,151 | 10,839 |
| Effect of exchange rate fluctuations | | 48 | 90 |
| **Cash and cash equivalents at end of the period** | ₩ | 320,431 | 182,151 |

*See accompanying notes to the consolidated financial statements.*

## 1. Reporting Entity

In accordance with the restructuring plan dated January 21, 1999 for the electricity industry in the Republic of Korea announced by the Ministry of Commerce, Industry and Energy and the Act on Promotion of Restructuring the Electric Power Industry published on December 23, 2000, Korea Southern Power Co., Ltd. (the "KOSPO" or the "Company") was incorporated on April 2, 2001 through the spin-off of the power generation division of Korea Electric Power Corporation (the "KEPCO"). KOSPO and its subsidiaries (the "Group") engage in the generation of electricity and development of electric power resources. The Group sells all generated electricity to KEPCO through the Korea Power Exchange ("KPX") in accordance with Article 31 of the Electricity Business Law. As of December 31, 2016, KEPCO holds all of the KOSPO's outstanding shares.

As of December 31, 2016, the Group operates eight thermal power units including Hadong thermal power plant, Hankyung wind power plant and Sungsan wind power plant and the Group's cumulative power generating capacity is 10,239 megawatt. The Group is currently constructing a 1,022 megawatt thermal power plant in Samcheok, which is expected to be completed in 2017.

## 2. Basis of Preparation

The consolidated financial statements have been prepared in accordance with Korean International Financial Reporting Standards ("K-IFRS"), as prescribed in the *Act on External Audits of Corporations*.

The consolidated financial statements were authorized for issue by Board of Directors on February 24, 2017, which are expected to be submitted for approval to the shareholders' meeting on March 30, 2017.

### (1) Basis of Measurement

The consolidated financial statements have been prepared under the historical cost basis except for the following material items in the statement of financial position:

- Derivative financial instruments are measured at fair value
- Available-for-sale financial assets are measured at fair value
- Liabilities for defined benefit plans are recognized at the net of the total present value of defined benefit

### (2) Functional and Presentation Currency

These consolidated financial statements are presented in Korean Won, which is the Company's functional currency that is the currency of the primary economic environment in which the Company operates. All financial information presented in Korean Won has been rounded to the nearest million.

### (3) Use of Estimates and Judgments

The preparation of the consolidated financial statements in conformity with K-IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

## 2. Basis of Preparation, Continued

### (3) Use of Estimates and Judgments, Continued

1) Management judgment

Information about critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the consolidated financial statements is included in the following notes:

- Note 15: Lease classification
- Note 17: Consolidation scope (whether control exists)
- Note 18: Classification as associates or joint ventures

2) The uncertainty of assumptions and estimates

Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next financial year are included in the following notes:

- Note 23: Employee Benefits (major actuarial assumptions)
- Note 24 and 43: Provisions and Contingent liabilities (the possibility of an outflow of resources and the amount)
- Note 37: Income Taxes (recognition of deferred tax assets)

3) Fair value measurement

The Group's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities. The Group has an established control framework with respect to the measurement of fair values. This includes a valuation team that has overall responsibility for overseeing all significant fair value measurements, including Level 3 fair values, and reports directly to the financial officer.

The valuation team regularly reviews significant unobservable inputs and valuation adjustments. If third party information, such as broker quotes or pricing services, is used to measure fair values, then the valuation team assesses the evidence obtained from the third parties to support the conclusion that such valuations meet the requirements of K-IFRS including the level in the fair value hierarchy in which such valuation techniques should be classified.

When measuring the fair value of an asset or a liability, the Group uses market observable data as far as possible. Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows.

- Level 1 : quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2 : inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3 : inputs for the asset or liability that are not based on observable market data (unobservable inputs).

## 2. Basis of Preparation, Continued

### (3) Use of Estimates and Judgments, Continued

If the inputs used to measure the fair value of an asset or a liability might be categorized in different levels of the fair value hierarchy, then 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 Group recognizes transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

Further information about the assumptions made in measuring fair values is included in the following notes:

- Note 10: Available-for-sale financial assets
- Note 40: Risk management

## 3. Changes in Accounting Policies

The Group has adopted the following new standards and amendments to standards and interpretation with a date of initial application of January 1, 2016.

- Amendments to K-IFRS 1016 'Property, Plant and Equipment'

The Group has adopted amendments to K-IFRS 1016, 'Property, Plant and Equipment', since January 1, 2016. Amendments to K-IFRS 1016, 'Property, Plant and Equipment', specify that the use of revenue-based methods to calculate the depreciation of an asset is not appropriate.

The adoption of the amendments did not have any impact on the Group's consolidated financial statements.

- Amendments to K-IFRS 1038 'Intangible Assets'

The Group has adopted amendments to K- IFRS 1038, 'Intangible Assets', since January 1, 2016. Amendments to K-IFRS 1038, 'Intangible Assets', introduce a rebuttable presumption that the use of revenue-based amortization methods for intangible assets is inappropriate. This presumption can be rebutted only when revenue and the consumption of the economic benefits of the intangible asset are highly correlated, or when the intangible asset is expressed as a measure of revenue.

The adoption of the amendments did not have any impact on the Group's consolidated financial statements.

-Amendments to K-IFRS 1111 'Joint Arrangement'

The Group has adopted amendments to K-IFRS 1111, 'Joint Arrangement', since January 1, 2016. Amendments to K-IFRS 1111, 'Joint Arrangement', require an investor to apply the principles of business combination accounting when it acquires an interest in a joint operation that constitutes a business as defined in K-IFRS 1103, 'Business Combinations'.

The adoption of the amendments did not have any impact on the Group's consolidated financial statements.

## 4. Significant Accounting Polices

Except for the changes explained in Note 3, the Group has consistently applied the following accounting policies to all periods in these consolidated financial statements. The significant accounting policies applied by the Group in preparation of its consolidated financial statements are included below.

### (1) Consolidation

1) Business combination

A business combination is accounted for by applying the acquisition method, unless it is a combination involving entities or businesses under common control.

The consideration transferred in a business combination shall be measured at fair value, which shall be calculated as the sum of the acquisition-date fair values of the assets transferred by the acquirer. When the Group recognized goodwill at the acquisition date, goodwill is tested for impairment annually by comparing their recoverable amount to their carrying amount. Also, when recognized amount (generally fair value) of the identifiable assets acquired and liabilities assumed are negative, bargain purchase gain is recognized immediately in profit or loss.

Acqusition-related costs, except for the costs to issue debt or equity securities are recognized in accordance with K-IFRS No.1032, 'Financial Instruments: Presentation' and K-IFRS No.1039, 'Financial Instruments: Recognition and Measurement' are recognized income or loss as incurred.

The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognized in profit or loss.

Any contingent consideration payable is measured at fair value at the acquisition date. If the contingent consideration is classified as equity, then it is not remeasured and settlement is accounted for within equity. Otherwise, subsequent changes in the fair value of the contingent consideration are recognized in profit or loss.

If share-based payment awards (replacement awards) are required to be exchanged for awards held by the acquiree's employees (acquiree's awards), then all or a portion of the amount of the acquirer's replacement awards is included in measuring the consideration transferred in the business combination. This determination is based on the market-based measure of the replacement awards compared with the market-based measure of the acquiree's awards and the extent to which the replacement awards relate to pre-combination service.

2) Non-controlling interests

As of the acquisition date, non-controlling interests in the acquiree are measured as the non-controlling interests' proportionate share of the acquirer's identifiable net assets.

Changes in the Group's ownership interests in subsidiaries that did not result in a loss of control are recognized in changes in equity.

## 4. Significant Accounting Polices, Continued

### (1) Consolidation, Continued

3) Subsidiaries

Subsidiaries are entities controlled by the Group. Control exists when the Group has the power to govern the financial and operating policies of the other entity so as to obtain benefits from its activities. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether the Group controls another entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

4) Loss of control of a subsidiary

When the Group loses control over a subsidiary, it derecognises the assets and liabilities of the subsidiary, and any related non-controlling interests and other components of equity. Any resulting gain or loss is recognized in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

5) Interests in equity-accounted investees

The Group's interests in equity-accounted investees comprise interests in associates and joint ventures.

Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

Interests in associates and joint ventures are accounted for using the equity method. They are recognized initially at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements include the Group's share of the profit or loss and other comprehensive income of equity-accounted investees, until the date on which significant influence or joint control ceases.

6) Intra-group transactions

Intra-group balances and transactions, and any unrealized income and expenses arising from intra-group transactions, are eliminated. Unrealized gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment.

7) Business combinations under common control

Business combinations under common control are accounted for in the consolidated accounts prospectively from the date the group obtains the ownership interest. Assets and liabilities are recognized upon consolidation at their carrying amount in the consolidated financial statements of the ultimate parent entity. Any difference between the fair value of the consideration paid and the amounts at which the assets and liabilities are recorded is recognized directly in equity in the business combinations under common control reserve.

## 4. Significant Accounting Polices, Continued

### (2) Cash and Cash Equivalents

Cash and cash equivalents comprise cash balances and call deposits with maturities of three months or less from the acquisition date that are subject to an insignificant risk of changes in their fair value, and are used by the Group in the management of its short-term commitments. Equity investments are excluded from cash and cash equivalents.

### (3) Inventories

Inventories are stated at the lower of cost and net realizable value. Cost of inventories, except for those in in-transit, are measured under the weighted average method and consists of the purchase price, cost of conversion and other costs incurred in bringing the inventories to their present location and condition. Net realizable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale.

When inventories are sold, the carrying amount of those inventories shall be recognized as an expense in the period in which the related revenue is recognized. The amount of any write-down of inventories to net realizable value and all losses of inventories shall be recognized as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories, arising from an increase in net realizable value, shall be recognized as a reduction in the amount of inventories recognized as an expense in the period in which the reversal occurs.

### (4) Non-derivative Financial Assets

The Group recognizes and measures a non-derivative financial asset by the following four categories: financial assets at fair value through profit or loss, held-to-maturity investments, loans and receivables or available-for-sale financial assets. The Group recognizes financial assets in the consolidated statement of financial position when the Group becomes a party to the contractual provisions of the instrument.

Upon initial recognition, non-derivative financial assets are measured at their fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the asset's acquisition or issuance.

1) Financial assets at fair value through profit or loss

A financial asset is classified as financial assets are classified at fair value through profit or loss if it is held for trading or is designated as such upon initial recognition. Upon initial recognition, transaction costs are recognized in profit or loss when incurred. Financial assets at fair value through profit or loss are measured at fair value, and changes therein are recognized in profit or loss.

2) Held-to-maturity investments

A non-derivative financial asset with a fixed or determinable payment and fixed maturity, for which the Group has the positive intention and ability to hold to maturity, are classified as held-to-maturity investments. Subsequent to initial recognition, held-to-maturity investments are measured at amortized cost using the effective interest method.

3) Loans and receivables

Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Subsequent to initial recognition, loans and receivables are measured at amortized cost using the effective interest method except for loans and receivables of which the effect of discounting is immaterial.

## 4. Significant Accounting Polices, Continued

### (4) Non-derivative Financial Assets, Continued

4) Available-for-sale financial assets

Available-for-sale financial assets are those non-derivative financial assets that are designated as available for sale or are not classified as financial assets at fair value through profit or loss, held-to-maturity investments or loans and receivables. Subsequent to initial recognition, they are measured at fair value, which changes in fair value, net of any tax effect, recorded in other comprehensive income in equity. Investments in equity instruments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured and derivatives those are linked to and must be settled by delivery of such unquoted equity instruments are measured at cost.

5) De-recognition of financial assets

The Group derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows on the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. Any interest in transferred financial assets that is created or retained by the Group is recognized as a separate asset or liability.

If the Group retains substantially all the risks and rewards of ownership of the transferred financial assets, the Group continues to recognize the transferred financial assets and recognizes financial liabilities for the consideration received.

6) Offsetting between financial assets and financial liabilities

Financial assets and financial liabilities are offset and the net amount is presented in the consolidated statement of financial position only when the Group currently has a legally enforceable right to offset the recognized amounts, and there is the intention to settle on a net basis or to realize the asset and settle the liability simultaneously.

## 4. Significant Accounting Polices, Continued

### (5) Derivative Financial Instruments, Including Hedge Accounting

Derivatives are initially recognized at fair value. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are accounted for as described below.

1) Hedge accounting

The Group holds forward exchange contracts, interest rate swaps, currency swaps and other derivative contracts to manage interest rate risk and foreign exchange risk.

The Group designated derivatives as hedging instruments to hedge the risk of changes in the fair value of assets, liabilities or firm commitments (a fair value hedge) and foreign currency risk of highly probable forecasted transactions or firm commitments (a cash flow hedge).

On initial designation of the hedge, the Group formally documents the relationship between the hedging instrument(s) and hedged item(s), including the risk management objectives and strategy in undertaking the hedge transaction, together with the methods that will be used to assess the effectiveness of the hedging relationship.

At the inception of the hedge relationship, the Group documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Group documents whether the hedging instrument is highly effective in offsetting changes in fair values or cash flows of the hedged item.

Cash flow hedge
When a derivative is designated to hedge the variability in cash flows attributable to a particular risk associated with a recognized asset or liability or a highly probable forecasted transaction that could affect profit or loss, the effective portion of changes in the fair value of the derivative is recognized in other comprehensive income, net of tax, and presented in the hedging reserve in equity. Any ineffective portion of changes in the fair value of the derivative is recognized immediately in profit or loss.

If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated, exercised, or the designation is revoked, then hedge accounting is discontinued prospectively. The cumulative gain or loss on the hedging instrument that has been recognized in other comprehensive income is reclassified to profit or loss in the periods during which the forecasted transaction occurs. If the forecasted transaction is no longer expected to occur, then the balance in other comprehensive income is recognized immediately in profit or loss.

2) Other derivative financial instruments
Changes in the fair value of other derivative financial instrument not designated as a hedging instrument are recognized immediately in profit or loss.

## 4. Significant Accounting Polices, Continued

### (6) Impairment of Financial Assets

A financial asset not carried at fair value through profit or loss is assessed at each reporting date to determine whether there is objective evidence that it is impaired. A financial asset is impaired if objective evidence indicates that a loss event has occurred after the initial recognition of the asset, and that the loss event had a negative effect on the estimated future cash flows of that asset that can be estimated reliably. However, losses expected as a result of future events, regardless of likelihood, are not recognized.

If financial assets have objective evidence that they are impaired, impairment losses should be measured and recognized.

1) Financial assets measured at amortized cost

An impairment loss in respect of a financial asset measured at amortized cost is calculated as the difference between its carrying amount and the present value of its estimated future cash flows discounted at the asset's original effective interest rate. If it is not practicable to obtain the instrument's estimated future cash flows, impairment losses would be measured by using prices from any observable current market transactions. The Group can recognize impairment losses directly or establish a provision to cover impairment losses. If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognized (such as an improvement in the debtor's credit rating), the previously recognized impairment loss shall be reversed either directly or by adjusting an allowance account.

2) Financial assets carried at cost
If there is objective evidence that an impairment loss has occurred on an unquoted equity instrument that is not carried at fair value because its fair value cannot be reliably measured, or on a derivative asset that is linked to and must be settled by delivery of such an unquoted equity instrument, the amount of the impairment loss is measured as the difference between the carrying amount of the financial asset and the present value of estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment losses shall not be reversed.

3) Available-for-sale financial assets
When a decline in the fair value of an available-for-sale financial asset has been recognized in other comprehensive income and there is objective evidence that the asset is impaired, the cumulative loss that had been recognized in other comprehensive income shall be reclassified from equity to profit or loss as a reclassification adjustment even though the financial asset has not been derecognized. Impairment losses recognized in profit or loss for an investment in an equity instrument classified as available-for-sale shall not be reversed through profit or loss. If, in a subsequent period, the fair value of a debt instrument classified as available-for-sale increases and the increase can be objectively related to an event occurring after the impairment loss was recognized in profit or loss, the impairment loss shall be reversed, with the amount of the reversal recognized in profit or loss.

## 4. Significant Accounting Polices, Continued

### (7) Property, Plant and Equipment

Property, plant and equipment are initially measured at cost and after initial recognition, are carried at cost less accumulated depreciation and accumulated impairment losses. The cost of property, plant and equipment includes expenditures arising directly from the construction or acquisition of the asset, any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management and the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Subsequent to initial recognition, an item of property, plant and equipment shall be carried at its cost less any accumulated depreciation and any accumulated impairment losses.

Land is not depreciated. Property, plant and equipment, except for land, are depreciated on a straight-line basis over estimated useful lives that appropriately reflect the pattern in which the asset's future economic benefits are expected to be consumed.

A component that is significant compared to the total cost of property, plant and equipment is depreciated over its consolidated useful life.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment and are recognized in profit or loss.

The estimated useful lives for the current and comparative periods are as follows:

| | Useful lives (years) |
|---|---|
| Buildings | 8 ~ 30 |
| Structures | 8 ~ 30 |
| Machinery | 2 ~ 30 |
| Ships | 9 |
| Vehicles | 4 |
| Equipment | 4 |
| Tools | 4 |
| Finance lease assets | 24 |
| Others | 15 |

Depreciation methods, useful lives and residual values are reviewed at the end of each reporting date and adjusted, if appropriate. The change is accounted for as a change in an accounting estimate.

## 4. Significant Accounting Polices, Continued

### (8) Intangible Asset

Intangible assets are measured initially at cost and, subsequently, are carried at cost less accumulated amortization and accumulated impairment losses.

Amortization of intangible assets except for goodwill is calculated on a straight-line basis over the estimated useful lives of intangible assets from the date that they are available for use. The residual value of intangible assets is zero. However, mining rights has applied the production method for reflect the form of economic benefits consumption, as there are no foreseeable limits to the periods over which some of other intangible assest are expected to be available for use, this intangible asset is determined as having an indefinite useful life and not amortized.

The estimated useful lives of the Group's intangible assets with finite useful lives are as follows:

| | Useful lives (years) |
|---|---|
| Computer software | 4 |
| Copyright, patent right and industrial property | 5 ~ 10 |
| Development costs | 5 |
| Usable and profitable donation assets | 20 |
| Land use right | 10 |
| Others | 20 |

Amortization periods and the amortization methods for intangible assets with finite useful lives are reviewed at the end of each reporting period. The useful lives of intangible assets that are not being amortized are reviewed at the end of each reporting period to determine whether events and circumstances continue to support indefinite useful life assessments for those assets. Changes are accounted for as changes in accounting estimates.

1) Research and development
Expenditures on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, are recognized in profit or loss as incurred. Development expenditures are capitalized only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Group intends to and has sufficient resources to complete development and to use or sell the asset. Other development expenditures are recognized in profit or loss as incurred.

2) Subsequent expenditures
Subsequent expenditures are capitalized only when they increase the future economic benefits embodied in the specific asset to which they relate. All other expenditures, including expenditures on internally generated goodwill and brands, are recognized in profit or loss as incurred.

## 4. Significant Accounting Polices, Continued

### (9) Borrowing Costs

The Group capitalizes borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset as part of the cost of that asset. Other borrowing costs are recognized in expense as incurred. A qualifying asset is an asset that requires a substantial period of time to get ready for its intended use or sale. Financial assets and inventories that are manufactured or otherwise produced over a short period of time are not qualifying assets. Assets that are ready for their intended use or sale when acquired are not qualifying assets.

To the extent that the Group borrows funds specifically for the purpose of obtaining a qualifying asset, the Group determines the amount of borrowing costs eligible for capitalization as the actual borrowing costs incurred on that borrowing during the period less any investment income on the temporary investment of those borrowings. To the extent that the Group borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the Group shall determine the amount of borrowing costs eligible for capitalization by applying a capitalization rate to the expenditures on that asset. The capitalization rate shall be the weighted average of the borrowing costs applicable to the borrowings of the Group that are outstanding during the period, other than borrowings made specifically for the purpose of obtaining a qualifying asset. The amount of borrowing costs that the Group capitalizes during a period shall not exceed the amount of borrowing costs incurred during that period.

### (10) Government Grants

Government grants are not recognized unless there is reasonable assurance that the Group will comply with the grant's conditions and that the grant will be received.

Government grants whose primary condition is that the Group purchase, construct or otherwise acquire long-term assets are deducted in calculating the carrying amount of the asset. The grant is recognized in profit or loss over the life of a depreciable asset as a reduced depreciation expense.

Government grants which are intended to compensate the Group for expenses incurred are recognized as other income (government grants) in profit or loss over the periods in which the Group recognizes the related costs as expenses. Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognized in income or loss in the period in which they become receivable.

### (11) Impairment of Non-financial Assets

The carrying amounts of the Group's non-financial assets, other than assets arising from employee benefits, inventories, deferred tax assets and non-current assets held for sale, are reviewed at the end of the reporting period to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill, irrespective of whether there is any indication of impairment, is tested for impairment annually by comparing their recoverable amount to their carrying amount.

## 4. Significant Accounting Polices, Continued

### (11) Impairment of Non-financial Assets, Continued

The Group estimates the recoverable amount of an individual asset. If it is impossible to measure the individual recoverable amount of an asset, then the Group estimates the recoverable amount of each cash-generating unit ("CGU"). A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or group of assets. The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. The value in use is estimated by applying a pre-tax discount rate that reflect current market assessments of the time value of money and the risks specific to the asset or CGU for which estimated future cash flows have not been adjusted, to the estimated future cash flows expected to be generated by the asset or CGU.

An impairment loss is recognized if the carrying amount of an asset or a CGU exceeds its recoverable amount. Impairment losses are recognized in profit or loss.

Goodwill arising from a business combination is allocated to CGUs or groups of CGUs that are expected to benefit from the synergies of the combination. An impairment losses in respect of CGU are allocated first to reduce the carrying amount of any goodwill allocated to the CGU, and then to reduce the carrying amounts of the other Assets in the CGU on a pro rata basis.

Except for impairment losses in respect of goodwill which are never reversed, an impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

### (12) Leases

The Group classifies and accounts for leases as either a finance or operating lease, depending on the terms. Leases where the Group assumes substantially all of the risks and rewards of ownership are classified as finance leases. All other leases are classified as operating leases.

1) Finance leases
At the commencement of the lease term, the Group recognizes as finance assets and finance liabilities in its consolidated statement of financial position, the lower amount of the fair value of the leased property and the present value of the minimum lease payments, each determined at the inception of the lease. Any initial direct costs are added to the amount recognized as an asset.

Minimum lease payments are apportioned between the finance charge and the reduction of the outstanding liability. The finance charge is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability. Contingent rents are charged as expenses in the periods in which they are incurred.

The depreciable amount of a leased asset is allocated to each accounting period during the period of expected use on a systematic basis consistent with the depreciation policy the lessee adopts for depreciable assets that are owned. If there is no reasonable certainty that the lessee will obtain ownership by the end of the lease term, the asset is fully depreciated over the shorter of the lease term and its useful life. The Group reviews to determine whether the leased asset may be impaired.

2) Operating leases
Leases where the lessor retains a significant portion of the risks and rewards of ownership are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are recognized in profit or loss on a straight-line basis over the period of the lease.

## 4. Significant Accounting Polices, Continued

### (13) Non-derivative Financial Liabilities

The Group classifies non-derivative financial liabilities into financial liabilities at fair value through profit or loss or other financial liabilities in accordance with the substance of the contractual arrangement and the definitions of financial liabilities. The Group recognizes financial liabilities in the consolidated statements of financial position when the Group becomes a party to the contractual provisions of the financial liability.

1) Financial liabilities at fair value through profit or loss
Financial liabilities at fair value through profit or loss include financial liabilities held for trading or designated as such upon initial recognition. Subsequent to initial recognition, financial liabilities at fair value through profit or loss are measured at fair value, and changes therein are recognized in profit or loss. Upon initial recognition, transaction costs that are directly attributable to the acquisition are recognized in profit or loss as incurred.

2) Other financial liabilities
Non-derivative financial liabilities other than financial liabilities at fair value through profit or loss are classified as other financial liabilities. At the date of initial recognition, other financial liabilities are measured at fair value minus transaction costs that are directly attributable to the acquisition. Subsequent to initial recognition, other financial liabilities are measured at amortized cost using the effective interest method.

The Group derecognizes financial liabilities when, and only when, the Group's obligations are discharged, cancelled or they expire.

### (14) Employee Benefits

1) Short-term employee benefits
Short-term employee benefits are employee benefits that are due to be settled within 12 months after the end of the period in which the employees render the related service. When an employee has rendered service to the Group during an accounting period, the Group recognizes the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service.

2) Other long-term employee benefits

Other long-term employee benefits include employee benefits that are settled beyond 12 months after the end of the period in which the employees render the related service, and are calculated at the present value of the amount of future benefit that employees have earned in return for their service in the current and prior periods, less the fair value of any related assets. The present value is determined by discounting the expected future cash flows using the interest rate of corporate bonds that have maturity dates approximating the terms of the Group's obligations and that are denominated in the same currency in which the benefits are expected to be paid. Any actuarial gains and losses are recognized in profit or loss in the period in which they arise.

3) Retirement benefits: defined contribution plans
When an employee has rendered service to the Group during a period, the Group recognizes the contribution payable to a defined contribution plan in exchange for that service as a liability (accrued expense), after deducting any contribution already paid. If the contribution already paid exceeds the contribution due for service before the end of the reporting period, the Group recognizes that excess as an asset (prepaid expense) to the extent that the prepayment will lead to a reduction in future payments or a cash refund.

## 4. Significant Accounting Polices, Continued

### (14) Employee Benefits, Continued

4) Retirement benefits: defined benefit plans
The Group's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in the current and prior periods, discounting that amount and deducting the fair value of any plan assets.

The calculation of defined benefit obligations is performed annually by qualified actuary using the projected unit credit method. When the calculation results in a potential asset for the Group, the recognized asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. To calculate the present value of economic benefits, consideration is given to any applicable minimum funding requirements.

Remeasurements of the net defined benefit liability, which comprise actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognized immediately in other comprehensive income. The Group determines the net interest expense (income) on the net defined benefit liability (asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the then-net defined benefit liability (asset), taking into account any changes in the net defined benefit liability (asset) during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognized in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailments is recognized immediately in profit or loss. The Group recognizes gains and losses on the settlement of a defined benefit plan when the settlement occurs.

### (15) Provisions

Provisions are recognized when the Group has a present legal or constructive obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

The risks and uncertainties that inevitably surround many events and circumstances are taken into account in reaching the best estimate of a provision. Where the effect of the time value of money is material, provisions are determined at the present value of the expected future cash flows.

Where some or all of the expenditures required to settle a provision are expected to be reimbursed by another party, the reimbursement shall be recognized when, and only when, it is virtually certain that reimbursement will be received if the entity settles the obligation. The reimbursement shall be treated as a separate asset.

Provisions are reviewed at the end of each reporting period and adjusted to reflect the current best estimates. If it is no longer probable that an outflow of resources embodying economic benefits will be required to settle the obligation, the provision is reversed.

A provision is used only for expenditures for which the provision was originally recognized.

## 4. Significant Accounting Polices, Continued

### (16) Greenhouse Gas Emissions Rights (allowance) and Obligations

Pursuant to Enforcement of Allocation and Trading of Greenhouse Gas Emissions Allowances, the Group applies the following accounting policies for emissions rights and obligations.

1) Emissions rights

Greenhouse gas emissions rights consist of the allowances received free of charge from the government and the ones purchased. The cost of the emissions rights includes expenditures arising directly from the acquisition and any other costs incurred during normal course of the acquisition. Emissions rights are held by the Group to fulfill the legal obligation and recorded as intangible assets. To the extent that the portion to be submitted to the government within one year from the end of reporting period, the emissions rights are classified as current assets. Emissions rights recorded as intangible assets are initially measured at cost and substantially remeasured at cost less accumulated impairment losses.

Greenhouse gas emission rights are derecognized on submission to the government or disposal in which the future economic benefits are no longer expected to be probable.

2) Emissions obligations

Emissions obligations are the Group's present legal obligation to submit the emissions allowances to the government and recognized when an outflow of resources is probable and a reliable estimate can be made of the amount of the obligation. Emissions obligations are measured as the sum of the carrying amount of the allocated rights that will be submitted to the government and the best estimate of expenditure required to settle the obligation at the end of the reporting period for any excess emission. Emissions obligations are derecognized on submission to the government.

### (17) Foreign Currencies

1) Foreign currency transactions

Foreign currency transactions are initially recorded using the spot exchange rate between the functional currency and the foreign currency at the date of the transaction. At the end of each reporting period, foreign currency monetary items are translated using the closing rate. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction. Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined.

Exchange differences arising on the settlement of monetary items or on translating monetary items at rates different from those at which they were translated on initial recognition during the period or in previous financial statement are recognized in profit or loss in the period in which they arise.

2) Foreign operations

If the presentation currency of the Group is different from a foreign operation's functional currency, the financial statements of the foreign operation are translated into the presentation currency using the following methods:

The assets and liabilities of foreign operations, whose functional currency is not the currency of a hyperinflationary economy, are translated to presentation currency at exchange rates at the reporting date. The income and expenses of foreign operations are translated to functional currency at exchange rates at the dates of the transactions. Foreign currency differences are recognized in other comprehensive income.

Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition of that foreign operation is treated as assets and liabilities of the foreign operation. Thus they are expressed in the functional currency of the foreign operation and translated at the closing rate.

## 4. Significant Accounting Polices, Continued

### (17) Foreign Currencies, Continued

When a foreign operation is disposed of, the relevant amount in the translation is transferred to profit or loss as part of the profit or loss on disposal. On the partial disposal of a subsidiary that includes a foreign operation, the relevant proportion of such cumulative amount is reattributed to non-controlling interest. In any other partial disposal of a foreign operation, the relevant proportion is reclassified to profit or loss.

### (18) Share Capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issuance of ordinary shares and share options are recognized as a deduction from equity, net of any tax effects.

### (19) Revenue

Revenue from the sale of goods, rendering of services or use of the Group assets is measured at the fair value of the consideration received or receivable.

1) Goods sold

The Group recognizes electricity sales revenue based on power sold (transferred to the customer) up to the reporting date. To determine the amount of power sold, the Group estimates daily power volumes of electricity. The differences between the current month's estimated amount and actual amount, is adjusted for (trued-up) during the next month period. The Group's power generation rates are determined through Korea Power Exchange.

2) Services

Revenue from services rendered is recognized in profit or loss in proportion to the stage of completion of the transaction at the reporting date. The stage of completion is assessed by reference to surveys of work performed.

### (20) Finance Income and Finance Costs

Finance income comprises interest income on funds invested (including available-for-sale financial assets), dividend income, gains on the disposal of available-for-sale financial assets, changes in the fair value of financial assets at fair value through profit or loss, and gains on hedging instruments that are recognized in profit or loss. Interest income is recognized as it accrues in profit or loss, using the effective interest method. Dividend income is recognized in profit or loss on the date that the Group's right to receive payment is established, which in the case of quoted securities is the ex-dividend date.

Finance costs comprise interest expense on borrowings, changes in the fair value of financial assets at fair value through profit or loss, impairment losses recognized on financial assets, and losses on hedging instruments that are recognized in profit or loss. Borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are recognized in profit or loss using the effective interest method.

## 4. Significant Accounting Polices, Continued

### (21) Income Taxes

Income tax expense comprises current and deferred tax. Current tax and deferred tax are recognized in profit or loss except to the extent that it relates to a business combination, or items recognized directly in equity or in other comprehensive income.

1) Current tax

Current tax is the expected tax payable or receivable on the taxable profit or loss for the year, using tax rates enacted or substantively enacted at the end of the reporting period and any adjustment to tax payable in respect of previous years. The taxable profit is different from the accounting profit for the period since the taxable profit is calculated excluding the temporary differences, which will be taxable or deductible in determining taxable profit (tax loss) of future periods, and non-taxable or non-deductible items from the accounting profit.

2) Deferred tax

Deferred tax is recognized, using the asset-liability method, in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. A deferred tax liability is recognized for all taxable temporary differences. A deferred tax asset is recognized for all deductible temporary differences to the extent that it is probable that taxable profit will be available against which they can be utilized. However, deferred tax is not recognized for the following temporary differences: taxable temporary differences arising on the initial recognition of goodwill, or the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting profit or loss nor taxable income.

The Group recognizes a deferred tax liability for all taxable temporary differences associated with investments in subsidiaries, associates, and interests in joint ventures, except to the extent that the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. The Group recognizes a deferred tax asset for all deductible temporary differences arising from investments in subsidiaries and associates, to the extent that it is probable that the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

The carrying amount of a deferred tax asset is reviewed at the end of each reporting period and reduces the carrying amount to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of that deferred tax asset to be utilized.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and deferred tax assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset only if there is a legally enforceable right to offset the related current tax liabilities and assets, and they relate to income taxes levied by the same tax authority and they intend to settle current tax liabilities and assets on a net basis.

## 4. Significant Accounting Polices, Continued

### (22) Earnings per share

The Group presents basic earnings per share data for its ordinary shares. Basic earnings per share is calculated by dividing the profit or loss attributable to ordinary shareholders of the Group by the weighted average number of ordinary shares outstanding during the period, adjusted for own shares held.

### (23) New Standards and Interpretations Not Yet Adopted

The following new standards, interpretations and amendments to existing standards have been published and are mandatory for the Group for annual periods beginning after January 1, 2016, and the Group has not early adopted them.

(i) K-IFRS 1109, 'Financial Instruments'

K-IFRS 1109, published on September 25, 2015, is effective for annual periods beginning on or after January 1, 2018, with earlier adoption permitted. It replaces existing guidance in K-IFRS 1039, 'Financial Instruments: Recognition and Measurement'. The Group plans to adopt K-IFRS 1109 for the year beginning on January 1, 2018. K-IFRS 1109 will generally be applied retrospectively; however the Group plans to take advantage of the exemption allowing it not to restate the comparative information for prior periods with respect to classification and measurement including impairment changes. New hedge accounting requirements will generally be applied prospectively except for certain exemptions including the accounting for the time value of options.

Key features of the new standard, K-IFRS 1109, are 1) classification and measurement of financial assets that reflects the business model in which the assets are managed and their cash flow characteristics, 2) impairment methodology that reflects 'expected credit loss' (ECL) model for financial assets, and 3) expanded scope of hedged items and hedging instruments which qualify for hedge accounting and changes in assessment method for effect of hedging relationships.

K-IFRS 1109 will require the Group to assess the financial impact from application of K-IFRS 1109 and revise its accounting processes and internal controls related to financial instruments. Actual impact of adopting K-IFRS 1109 will be dependent on the financial instruments the Group holds and economic conditions at that time as well as accounting policy elections and judgment that it will make in the future.

The Group has not initiated any changes in internal controls processes or accounting processing systems, and has not performed an assessment of the impact resulting from the application of K-IFRS 1109. The Group is currently performing a detailed assessment of the potential impact from the application of K-IFRS 1109. Expected impacts on the consolidated financial statements are generally categorized as follows:

## 4. Significant Accounting Polices, Continued

### (23) New Standards and Interpretations Not Yet Adopted, Continued

(i) K-IFRS 1109, 'Financial Instruments', continued

1) Classification and measurement of financial assets

Under K-IFRS 1109, financial assets are classified into three principal categories; measured at amortized cost, fair value through other comprehensive income (FVOCI) and fair value through profit or loss (FVTPL) based on the business model in which assets are managed and their cash flow characteristics. Under K-IFRS 1109, derivatives embedded in hybrid contracts where the host is a financial asset are not bifurcated. Instead, the hybrid financial instrument as a whole is assessed for classification.

As there are additional requirements for a financial asset to be classified as measured at amortized costs or FVOCI under K-IFRS 1109 compared to the existing guidance in K-IFRS 1039, the adoption of K-IFRS 1109 would potentially increase the proportion of financial assets that are measured at FVTPL, increasing volatility in the Group's profit or loss.

The criteria for classification and measurement of financial assets under K-IFRS 1109 are as follows:

- A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated as at FVTPL: 1) the asset is held within a business model whose objective is to hold assets to collect contractual cash flows; and 2) the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

- A financial asset is measured at FVOCI if it meets both of the following conditions and is not designated as at FVTPL: 1) the asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and 2) the contractual terms of the financial asset give rise on specified dates to cash flow that are solely payments of principal and interest on the principal amount outstanding.

- On initial recognition of equity investment that is not held for trading, the Group may irrevocably elect to present subsequent changes in fair value in OCI, and will not reclassify (recycle) the those items in OCI to profit or loss subsequently.

- A financial asset is measured at FVTPL if the contractual terms of the financial asset give rise to specified dates to cash flows that are not solely payments of principal and interest on the principal amount outstanding, the debt instrument is held within a business model whose objective is to sell the asset, or the equity instruments that are not elected to be designated as measured at FVOCI.

## 4. Significant Accounting Polices, Continued

### (23) New Standards and Interpretations Not Yet Adopted, Continued

(i) K-IFRS 1109, 'Financial Instruments', continued

1) Classification and measurement of financial assets, continued

As of December 31, 2016, the Group has loans and receivables amounting to ₩904,859 million, available-for-sale financial assets amounting to ₩96,276 million, financial assets at fair value through profit or loss amounting to ₩3,129 million, and derivatives using hedge accounting to ₩46,319 million.

2) Classification and measurement of financial liabilities

Under K-IFRS 1109, the amount of change in the fair value attributable to the changes in the credit risk of the financial liabilities is presented in OCI, not recognized in profit or loss, and the OCI amount will not be reclassified (recycled) to profit or loss. However, if doing so creates or increase an accounting mismatch, the amount of change in the fair value is recognized in profit or loss.

As a portion of fair value change which was recognized in profit or loss under the existing standard, K-IFRS 1039, will be presented in OCI under K-IFRS 1109, profit or loss related to valuation of financial liabilities is likely to decrease.

The Group does not have any financial liability designated as at FVTPL as of December 31, 2016.

3) Impairment: Financial assets and contract assets

K-IFRS 1109 replaces the 'incurred loss' model in the existing standard with a forward-looking 'expected credit loss' (ECL) model for debt instruments, lease receivables, contractual assets, loan commitments, financial guarantee contracts.

Under K-IFRS 1109, impairment losses are likely to be recognized earlier than using the incurred loss model under the existing guidance in K-IFRS 1039 as loss allowances will be measured on either of the 12-month or lifetime ECL based on the extent of increase in credit risk since inception as shown in the below table.

| Classification | | Loss allowances |
|---|---|---|
| Stage 1 | Credit risk has not increased significantly since the initial recognition | 12-month ECL: ECLs that resulted from possible default events within the 12 months after the reporting date |
| Stage 2 | Credit risk has increased significantly since the initial recognition | Lifetime ECL: ECL that resulted from all possible default events over the expected life of a financial instrument |
| Stage 3 | Credit-impaired | |

Under K-IFRS 1109, financial assets of which the credit was impaired at the initial recognition, cumulative changes in lifetime ECL since the initial recognition are recognized as loss allowances.

As of December 31, 2016, the Group has debt instruments measured at amortized cost amounting to ₩904,859 million (loans and receivables) and has no loss allowances.

## 4. Significant Accounting Polices, Continued

### (23) New Standards and Interpretations Not Yet Adopted, Continued

(i) K-IFRS 1109, 'Financial Instruments', continued

4) Hedge accounting

K-IFRS 1109 retains the mechanics of hedge accounting (fair value hedge, cash flow hedge, hedging on net investment in a foreign operation) which was defined in the existing guidance in K-IFRS 1109, but provides principle-based and less complex guidance in hedging which focuses on the risk management activities. More hedged items and hedging instruments would qualify for hedge accounting, more qualitative and forward-looking approach will be taken to assessing hedge effectiveness, and qualitative threshold (80~125%) is removed under K-IFRS 1109.

Certain transactions which were not qualified for hedge accounting under the existing standard will be likely to quality for hedge accounting under K-IFRS 1109, decreasing volatility in the Group's profits or loss.

When initially applying K-IFRS 1109, the Group may choose as its accounting policy to continue to apply the hedge accounting requirements of K-IFRS 1039.

(ii) K-IFRS 1115, 'Revenue from Contracts with Customers'

K-IFRS 1115, 'Revenue from Contracts from Customers', published on November 6, 2015, is effective for annual periods beginning on or after January 1, 2018, with earlier adoption permitted.

It replaces existing revenue recognition guidance, including K-IFRS 1018, 'Revenue', K-IFRS 1011, 'Construction Contracts', K-IFRS 2031, 'Revenue-Barter transactions involving advertising services', K-IFRS, '2113 Customer Loyalty Programs', K-IFRS 2115, 'Agreements for the construction of real estate', K-IFRS 2118, 'Transfers of assets from customers'.

Existing K-IFRS standards and interpretations including K-IFRS 1018 provide revenue recognition guidance by transaction types such as sales of goods, rendering of services, interest income, royalty income, dividend income and construction revenue; however, under the new standard, K-IFRS 1115, the five-step approach (Step 1: Identify the contract(s) with a customer, Step 2: Identify the performance obligations in the contract, Step 3: Determine the transaction price, Step 4: Allocate the transaction price to the performance obligations in the contract, Step 5: Recognize revenue when the entity satisfied a performance obligation) is applied for all types of contracts or agreements.

As of December 31, 2016, the Group has not started modifying of internal control process or changing the accounting system related to K-IFRS 1115. The Group is currently performing a detailed assessment of the impact resulting from the application of K-IFRS 1115 and plans to complete the assessment in advance of its effective date.

## 5. Operating Segments

(1) The Group's segments are classified at the business unit level at which the Group generates separately identifiable revenue and costs, and the related information is reported to the chief operating decision maker for the purpose of resource allocation and assessment of segment performance. The Group's operating segments, in accordance with K-IFRS 1108, are 'Electric power generation (thermal power)' and 'Other': the 'Other' segment represents the business unit that manages the Group's foreign operations and maintenance services.

Transactions that occur between the two segments are all based on arms-length transactions priced at market prices that would be applicable to an independent third-party. The accounting policies of the reportable segments are the same as the Group's accounting policies described in note 4.

(2) Sales, operating income and loss for the years

(i) For the year ended December 31, 2016

*In millions of won*

| | | Electric power generation | Others | Adjustment | Total |
|---|---|---|---|---|---|
| Sales | ₩ | 4,200,035 | 19,979 | (1,200) | 4,218,813 |
| Operating income | | 596,225 | 7,440 | (293) | 603,372 |
| Income tax expense | | 104,458 | 765 | - | 105,223 |
| Profit for the period | | 415,255 | 7,293 | - | 422,548 |
| Depreciation and amortization | | 526,696 | 862 | - | 527,558 |
| Equity method loss | | (11,262) | - | - | (11,262) |

(ii) For the year ended December 31, 2015

*In millions of won*

| | | Electric power generation | Others | Adjustment | Total |
|---|---|---|---|---|---|
| Sales | ₩ | 4,317,995 | 14,697 | - | 4,332,692 |
| Operating income | | 367,260 | 3,077 | 23 | 370,360 |
| Income tax expense | | 42,970 | 563 | - | 43,533 |
| Profit for the period | | 221,280 | 171 | - | 221,451 |
| Depreciation and amortization | | 526,349 | 748 | - | 527,097 |
| Equity method gain | | 90 | - | - | 90 |

## 5. Operating Segments, Continued

(3) Total assets and total liabilities

(i) As of December 31, 2016

*In millions of won*

| | | Electric power generation | Others | Adjustment | Total |
|---|---|---|---|---|---|
| Total assets | ₩ | 10,012,669 | 53,122 | - | 10,065,791 |
| Investments in associates and joint ventures | | 179,652 | - | - | 179,652 |
| Acquisition of non-current assets for the year | | 754,383 | 6,239 | - | 760,622 |
| Total liabilities | | 5,852,616 | 7,004 | - | 5,859,620 |

(ii) As of December 31, 2015

*In millions of won*

| | | Electric power generation | Others | Adjustment | Total |
|---|---|---|---|---|---|
| Total assets | ₩ | 9,231,229 | 29,228 | (2) | 9,260,455 |
| Investments in associates and joint ventures | | 170,317 | - | - | 170,317 |
| Acquisition of non-current assets for the year | | 961,989 | 838 | - | 962,827 |
| Total liabilities | | 5,543,586 | 6,334 | (2) | 5,549,918 |

(4) The Group is engaged in the generation and sales of electricity in the Republic of Korea.

Geographical information on revenue from external for the annual periods ended December 31, 2016 and 2015 and non-current assets as of December 31, 2016 and 2015 are as follows:

*In millions of won*

| | | Revenue from external customer | | Non-current assets | |
|---|---|---|---|---|---|
| | | **December 31, 2016** | **December 31, 2015** | **December 31, 2016** | **December 31, 2015** |
| Domestic | ₩ | 4,198,835 | 4,317,996 | 8,623,222 | 8,351,838 |
| Australia | | 5,357 | 4,729 | 21,475 | 14,450 |
| Jordan | | 7,321 | 9,967 | 514 | 579 |
| Chile | | 7,300 | - | 617 | - |
| Total | ₩ | 4,218,813 | 4,332,692 | 8,645,828 | 8,366,867 |

(5) Information about major customers

For the years ended December 31, 2016 and 2015, the Group recognized revenues of ₩4,184,473 million and ₩4,289,256 million, respectively, to KEPCO, which is the Group's largest customer.

## 6. Restricted Financial Instruments

Restricted financial instruments equivalents as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 | Description |
|---|---|---|---|---|
| Cash and cash equivalents | ₩ | 57,541 | - | Collateral provided for borrowings |

## 7. Cash and Cash Equivalents

Cash and cash equivalents as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Cash (including demand deposits) | ₩ | 98,967 | 77,615 |
| Cash equivalents | | 221,464 | 104,536 |
| | ₩ | 320,431 | 182,151 |

## 8. Categories of Financial Instruments

(1) Financial assets
Categories of financial assets as of December 31, 2016 and 2015 are as follows:

(i) As of December 31, 2016

| *In millions of won* | | Financial assets at fair value through profit or loss | Loans and receivables | Available-for-sale financial assets | Derivatives using hedge accounting | Total |
|---|---|---|---|---|---|---|
| Current financial assets: | | | | | | |
| Cash and cash equivalents | ₩ | - | 320,431 | - | - | 320,431 |
| Current financial assets | | | | | | |
| Derivative assets | | 1,424 | - | - | 12,305 | 13,729 |
| Loans | | - | 1,223 | - | - | 1,223 |
| Trade and other receivables, net | | - | 551,786 | - | - | 551,786 |
| | | 1,424 | 873,440 | - | 12,305 | 887,169 |
| Non-current financial assets: | | | | | | |
| Non-current financial assets | | | | | | |
| Available-for-sale financial assets | | - | - | 96,276 | - | 96,276 |
| Derivative assets | | 1,705 | - | - | 34,014 | 35,719 |
| Loans | | - | 13,777 | - | - | 13,777 |
| Non-current trade and other receivables, net | | - | 17,642 | - | - | 17,642 |
| | | 1,705 | 31,419 | 96,276 | 34,014 | 163,414 |
| | ₩ | 3,129 | 904,859 | 96,276 | 46,319 | 1,050,583 |

## 8. Categories of Financial Instruments, Continued

(1) Financial assets, continued
Categories of financial assets as of December 31, 2016 and 2015 are as follows:

(ii) As of December 31, 2015

| *In millions of won* | | Financial assets at fair value through profit or loss | Loans and receivables | Available-for-sale financial assets | Derivatives using hedge accounting | Total |
|---|---|---|---|---|---|---|
| Current financial assets: | | | | | | |
| Cash and cash equivalents | ₩ | - | 182,151 | - | - | 182,151 |
| Current financial assets | | | | | | |
| Short-term financial instruments | | - | 20,000 | - | - | 20,000 |
| Derivative assets | | 32 | - | - | - | 32 |
| Loans | | - | 764 | - | - | 764 |
| Trade and other receivables, net | | - | 442,489 | - | - | 442,489 |
| | | 32 | 645,404 | - | - | 645,436 |
| Non-current financial assets: | | | | | | |
| Non-current financial assets | | | | | | |
| Available-for-sale financial assets | | - | - | 16,620 | - | 16,620 |
| Derivative assets | | - | - | - | 29,275 | 29,275 |
| Loans | | - | 12,435 | - | - | 12,435 |
| Non-current trade and other receivables, net | | - | 11,147 | - | - | 11,147 |
| | | - | 23,582 | 16,620 | 29,275 | 69,477 |
| | ₩ | 32 | 668,986 | 16,620 | 29,275 | 714,913 |

## 8. Categories of Financial Instruments, Continued

(2) Financial liabilities
Categories of financial liabilities as of December 31, 2016 and 2015 are as follows:

(i) As of December 31, 2016

| *In millions of won* | | Financial liabilities at fair value through profit or loss | Financial liabilities measured at amortized cost | Total |
|---|---|---|---|---|
| Current financial liabilities: | | | | |
| Trade and other payables | ₩ | - | 529,371 | 529,371 |
| Current financial liabilities | | | | |
| Borrowings | | - | 366 | 366 |
| Debentures | | - | 770,541 | 770,541 |
| | | - | 1,300,278 | 1,300,278 |
| Non-current financial liabilities: | | | | |
| Trade and other payables | | - | 19,629 | 19,629 |
| Non-current financial liabilities | | | | |
| Borrowings | | - | 191,985 | 191,985 |
| Debentures | | - | 3,815,358 | 3,815,358 |
| | | - | 4,026,972 | 4,026,972 |
| | ₩ | - | 5,327,250 | 5,327,250 |

(ii) As of December 31, 2015

| *In millions of won* | | Financial liabilities at fair value through profit or loss | Financial liabilities measured at amortized cost | Total |
|---|---|---|---|---|
| Current financial liabilities: | | | | |
| Trade and other payables | ₩ | - | 336,097 | 336,097 |
| Current financial liabilities | | | | |
| Borrowings | | - | 566 | 566 |
| Debentures | | - | 479,722 | 479,722 |
| Derivative liabilities | | 166 | - | 166 |
| | | 166 | 816,385 | 816,551 |
| Non-current financial liabilities: | | | | |
| Trade and other payables | | - | 24,453 | 24,453 |
| Non-current financial liabilities | | | | |
| Borrowings | | - | 3,801 | 3,801 |
| Debentures | | - | 4,249,733 | 4,249,733 |
| | | - | 4,277,987 | 4,277,987 |
| | ₩ | 166 | 5,094,372 | 5,094,538 |

## 8. Categories of Financial Instruments, Continued

(3) Finance income and costs
Finance income and costs on each category of financial instruments for the years ended December 31, 2016 and 2015 are as follows:

*In millions of won*

| Type | Description | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Cash and cash equivalents | Interest income | ₩ 2,931 | 2,569 |
| | Gain (loss) on foreign currency transaction and translation, net | 330 | (93) |
| Available-for-sale financial assets | Loss on disposal | - | (60) |
| | Impairment loss | (1,963) | (12,989) |
| | Net change in the unrealized fair value of available-for-sale financial assets before tax | (5,049) | 664 |
| Short-term financial instruments | Interest income | 1,945 | - |
| Loans | Interest income | 322 | 625 |
| Trade and other receivables | Interest income | 664 | 1,056 |
| | Gain on foreign currency transaction and translation, net | 5 | 137 |
| Financial assets at FVTPL | Gain on valuation of derivative instruments, net | 3,128 | 32 |
| | Gain on transactions of derivative instruments, net | 7,693 | 6,043 |
| Derivatives using hedge accounting (assets) | Gain on valuation of derivative instruments, net(profit or loss) | 14,600 | 29,120 |
| | Gain on transactions of derivative instruments, net(equity, before tax) | 2,444 | 3,101 |
| Financial liabilities recorded at amortized cost | Loss on foreign currency transaction and translation, net | (18,739) | (32,153) |
| | Interest expense of borrowings and debentures | (60,766) | (48,992) |
| | Other interest expense | (3,395) | (3,999) |
| Financial liabilities at FVTPL | Loss on valuation of derivative instruments, net | - | (166) |
| | Loss on transactions of derivative instruments, net | (4,898) | (3,449) |

## 9. Trade and Other Receivables

(1) Trade and other receivables as of December 31, 2016 and 2015 are as follows:

(i) As of December 31, 2016

| *In millions of won* | | Gross receivables | Allowance for doubtful accounts | Present value discount and other | Book value |
|---|---|---|---|---|---|
| Current assets: | | | | | |
| Trade receivables | ₩ | 464,965 | - | - | 464,965 |
| Other receivables | | 86,860 | - | (39) | 86,821 |
| | | 551,825 | - | (39) | 551,786 |
| Non-current assets: | | | | | |
| Other receivables | | 17,938 | - | (296) | 17,642 |
| | ₩ | 569,763 | - | (335) | 569,428 |

(ii) As of December 31, 2015

| *In millions of won* | | Gross receivables | Allowance for doubtful accounts | Present value discount and other | Book value |
|---|---|---|---|---|---|
| Current assets: | | | | | |
| Trade receivables | ₩ | 331,818 | - | - | 331,818 |
| Other receivables | | 110,821 | - | (150) | 110,671 |
| | | 442,639 | - | (150) | 442,489 |
| Non-current assets: | | | | | |
| Other receivables | | 11,292 | - | (145) | 11,147 |
| | ₩ | 453,931 | - | (295) | 453,636 |

(2) Details of other receivables as of December 31, 2016 and 2015 are as follows:

(i) As of December 31, 2016

| *In millions of won* | | Gross receivables | Allowance for doubtful accounts | Present value discount and other | Book value |
|---|---|---|---|---|---|
| Current assets: | | | | | |
| Non-trade receivables | ₩ | 11,486 | - | - | 11,486 |
| Accrued income | | 68,607 | - | - | 68,607 |
| Guarantee | | 5,885 | - | (39) | 5,846 |
| Financial lease receivables | | 882 | - | - | 882 |
| | | 86,860 | - | (39) | 86,821 |
| Non-current assets: | | | | | |
| Guarantee | | 17,108 | - | (296) | 16,812 |
| Financial lease receivables | | 830 | - | - | 830 |
| | | 17,938 | - | (296) | 17,642 |
| | ₩ | 104,798 | - | (335) | 104,463 |

## 9. Trade and Other Receivables, Continued

(2) Details of other receivables as of December 31, 2016 and 2015 are as follows, continued:

(ii) As of December 31, 2015

| *In millions of won* | | Gross receivables | Allowance for doubtful accounts | Present value discount and other | Book value |
|---|---|---|---|---|---|
| Current assets: | | | | | |
| Non-trade receivables | ₩ | 5,614 | - | - | 5,614 |
| Accrued income | | 91,842 | - | - | 91,842 |
| Guarantee | | 12,634 | - | (150) | 12,484 |
| Financial lease receivables | | 731 | - | - | 731 |
| | | 110,821 | - | (150) | 110,671 |
| Non-current assets: | | | | | |
| Guarantee | | 10,178 | - | (145) | 10,033 |
| Financial lease receivables | | 1,114 | - | - | 1,114 |
| | | 11,292 | - | (145) | 11,147 |
| | ₩ | 122,113 | - | (295) | 121,818 |

For electricity sales revenue, the average trade receivable credit term is 25 business days from the date of the revenues generated. Interest is charged on trade receivable after 25 business days from invoice date based on interest rate of overdue open market loan.

(3) There are no trade and other receivables which are overdue or impaired as of December 31, 2016 and 2015.

## 10. Available-for-Sale Financial Assets

(1) Changes in available-for-sale financial assets for the years ended December 31, 2016 and 2015 are as follows:

(i) For the year ended December 31, 2016

*In millions of won*

| | | Beginning balance | Valuation | Impairment | Other(*) | Ending Balance |
|---|---|---|---|---|---|---|
| Listed equity securities | ₩ | - | (8,693) | - | 80,533 | 71,840 |
| Unlisted equity securities | | 16,620 | 3,644 | (1,963) | 6,135 | 24,436 |
| | ₩ | 16,620 | (5,049) | (1,963) | 86,668 | 96,276 |

(*) Other amount of listed equity securities includes investment in kind made by KEPCO. (note 27)

## 10. Available-for-Sale Financial Assets, Continued

(1) Changes in available-for-sale financial assets for the years ended December 31, 2016 and 2015 are as follows, continued:

(ii) For the year ended December 31, 2015

*In millions of won*

| | | Beginning balance | Acquisition | Disposal | Valuation | Impairment | Ending Balance |
|---|---|---|---|---|---|---|---|
| Unlisted equity securities | ₩ | 28,684 | 393 | (132) | 664 | (12,989) | 16,620 |

(2) Available-for-sale financial assets as of December 31, 2016 and 2015 are as follows:

(i) As of December 31, 2016

| *In millions of won except share information and ownership* | Shares | Ownership (%) | | Acquisition cost | Book value | Fair value |
|---|---|---|---|---|---|---|
| Listed securities: | | | | | | |
| PT. Bayan Resources TBK | 133,333,340 | 4.00 | ₩ | 80,533 | 71,840 | 71,840 |
| Unlisted securities: | | | | | | |
| Korea Power Exchange(*1) | - | 7.14 | | 9,131 | 16,455 | 16,455 |
| KEPCO-Uhde inc.(*2,3) | 103,230 | 2.40 | | 516 | 14 | 14 |
| PT. Kedap Sayaaq(*2) | 671 | 10.00 | | 18,540 | - | - |
| DS POWER Co., Ltd.(*2,4) | 580,000 | 2.34 | | 2,900 | 1,439 | 1,439 |
| HeeMang Sunlight Power Co., Ltd.(*2) | 78,600 | 8.33 | | 393 | 393 | 393 |
| KEPCO Bylong Australia Pty., Ltd.(*2) | - | 2.00 | | 6,135 | 6,135 | 6,135 |
| | | | ₩ | 118,148 | 96,276 | 96,276 |

(*1) The fair value of non-marketable available-for-sale financial assets is determined using the valuation results in which weighted average borrowing rates of interest of evaluated companies are used as a discount rate.

(*2) Book and fair values of unlisted equity securities held by the Group were measured at cost as a quoted market price does not exist in an active market and its fair value cannot be measured reliably.

(*3) Because of coutinued deficits, the Company has concluded there is an objective evidence of impairment. The Company has recognized ₩502 million of impairment.

(*4) Because of coutinued deficits, the Company has concluded there is an objective evidence of impairment. The Company has recognized ₩1,461 million of impairment.

## 10. Available-for-Sale Financial Assets, Continued

(2) Available-for-sale financial assets as of December 31, 2016 and 2015 are as follows, continued:

(ii) As of December 31, 2015

| *In millions of won except share information and ownership* | Shares | Ownership (%) | | Acquisition cost | Book value | Fair value |
|---|---|---|---|---|---|---|
| Unlisted securities: | | | | | | |
| Korea Power Exchange(*1) | - | 7.14 | ₩ | 9,131 | 12,811 | 12,811 |
| KEPCO-Uhde inc.(*2) | 103,230 | 3.00 | | 516 | 516 | 516 |
| PT. Kedap Sayaaq(*2) | 671 | 10.00 | | 18,540 | - | - |
| DS POWER Co., Ltd.(*2) | 580,000 | 2.34 | | 2,900 | 2,900 | 2,900 |
| HeeMang Sunlight Power Co., Ltd.(*2) | 78,600 | 8.33 | | 393 | 393 | 393 |
| | | | ₩ | 31,480 | 16,620 | 16,620 |

(*1) The fair value of non-marketable available-for-sale financial assets is determined using the valuation results in which weighted average borrowing rates of interest of evaluated companies are used as a discount rate.

(*2) Book and fair values of unlisted equity securities held by the Group were measured at cost as a quoted market price does not exist in an active market and its fair value cannot be measured reliably.

## 11. Derivatives

(1) Derivatives as of December 31, 2016 and December 31, 2015 are as follows:

| *In millions of won* | | **December 31, 2016** | | **December 31, 2015** | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Derivative Assets: | | | | | |
| Currency forward | ₩ | 1,424 | - | 32 | - |
| Currency swap | | 12,305 | 34,014 | - | 29,275 |
| Others(*) | | - | 1,705 | - | - |
| | ₩ | 13,729 | 35,719 | 32 | 29,275 |
| Derivative Liabilities: | | | | | |
| Currency forward | | - | - | 166 | - |
| | ₩ | - | - | 166 | - |

(*) As described in the note 41, this amount represents the fair value of the obligation to sell the shares of the DS Power Co., Ltd.

## 11. Derivatives, Continued

(2) Currency swap contracts as of December 31, 2016 are as follows:

| *In millions of won, In thousands of USD* | | | Contract amounts | | Contract interest rate | | |
|---|---|---|---|---|---|---|---|
| Type | Counterparty | Period | Pay (KRW) | Receive (USD) | Pay (%) | Receive (%) | Contract currency |
| CF Hedge | Barclays Bank PLC | 2013.02.05~2018.02.05 | 81,187 | 75,000 | 2.65 | 1.88 | 1,082.50 |
| | Credit Agricole | 2013.02.05~2018.02.05 | 81,187 | 75,000 | 2.65 | 1.88 | 1,082.50 |
| | Deutsche Bank AG | 2013.02.05~2018.02.05 | 81,187 | 75,000 | 2.65 | 1.88 | 1,082.50 |
| | Citibank Korea Inc. | 2013.02.05~2018.02.05 | 81,187 | 75,000 | 2.65 | 1.88 | 1,082.50 |
| | Credit Agricole | 2014.01.28~2017.01.28 | 54,205 | 50,000 | 2.93 | 3M Libor+1.05 | 1,084.10 |
| | Standard Chartered Bank Korea Limited | 2014.01.28~2017.01.28 | 54,205 | 50,000 | 2.93 | 3M Libor+1.05 | 1,084.10 |

(3) Currency forward contracts as of December 31, 2016 are as follows:

| *In millions of won, In thousands of USD, in thousands of EUR, in thousands of CNY* | | | | Contract amounts | | |
|---|---|---|---|---|---|---|
| Type | Counterparty | Contract date | Maturity date | Pay (KRW) | Receive (USD) | Contract currency |
| Trading | Mizuho Bank | 2016-12-12 | 2017-01-10 | 19,887 | USD 17,000 | 1169.83 |
| | Credit Agricole | 2016-12-19 | 2017-01-13 | 8,302 | USD 7,000 | 1186.05 |
| | Standard Chartered Bank Korea Limited | 2016-12-15 | 2017-01-13 | 16,503 | USD 14,000 | 1178.76 |
| | Hana Bank | 2016-12-29 | 2017-01-05 | 341 | EUR 270 | 1262.26 |
| | Hana Bank | 2016-08-26 | 2017-02-16 | 4,812 | EUR 3,800 | 1266.30 |
| | Hana Bank | 2016-09-07 | 2017-09-06 | 3,121 | EUR 2,500 | 1248.20 |
| | Hana Bank | 2016-08-26 | 2017-08-09 | 1,280 | CNY 7,800 | 164.13 |
| | Hana Bank | 2016-09-07 | 2017-09-06 | 834 | CNY 5,200 | 160.48 |

(4) The gain (loss) on valuation and transaction of derivatives for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | Net income effect of valuation gain (loss) | | Net income effect of transaction gain (loss) | | Accumulated other comprehensive income (loss) | |
|---|---|---|---|---|---|---|---|
| Type | | **December 31, 2016** | **December 31, 2015** | **December 31, 2016** | **December 31, 2015** | **December 31, 2016** | **December 31, 2015** |
| Currency forward | ₩ | 1,423 | (134) | 2,795 | 2,594 | - | - |
| Currency swap(*) | | 14,600 | 29,120 | - | - | 2,444 | 3,101 |
| Other derivative assets | | 1,705 | - | - | - | - | - |
| | ₩ | 17,728 | 28,986 | 2,795 | 2,594 | 2,444 | 3,101 |

(*) The loss on valuation of derivative instruments using cash flow hedge accounting is reogognized as accumulated other comprehensive gain amounting to ₩1,853 million, net of tax as of December 31, 2016.

## 12. Loans

Loans as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | | December 31, 2015 | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Student loans(*1) | ₩ | 608 | 12,654 | 828 | 11,504 |
| Present value discount account | | (68) | (68) | (64) | (249) |
| | | 540 | 12,586 | 764 | 11,255 |
| Mortgage loans | | 683 | - | - | - |
| Mortgage loans(*2) | | - | 1,170 | - | 1,180 |
| Employee loans - other | | - | 21 | - | - |
| | ₩ | 1,223 | 13,777 | 764 | 12,435 |

(*1) The Group provides loans to employees without interest for the purpose of educational expenses for their children. The loans are paid back from appropriate portions of quarterly bonuses.
(*2) The Group provided housing loans to employees for their relocation. The loans have a 4-year maturity and are to be repaid in full on that date.

## 13. Short-term financial instruments

Short-term financial instruments as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | | December 31, 2015 | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| CP | ₩ | - | - | 20,000 | - |

## 14. Inventories

Inventories as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | | | December 31, 2015 | | |
|---|---|---|---|---|---|---|---|
| | | Acquisition cost | Allowance for valuation | Book Value | Acquisition cost | Allowance for valuation | Book Value |
| Materials | ₩ | 58,783 | - | 58,783 | 56,487 | - | 56,487 |
| Supplies | | 36,000 | - | 36,000 | 38,319 | - | 38,319 |
| Goods in transit | | 148,382 | - | 148,382 | 47,365 | - | 47,365 |
| Others | | 3,258 | - | 3,258 | 2,689 | - | 2,689 |
| | ₩ | 246,423 | - | 246,423 | 144,860 | - | 144,860 |

## 15. Financial Lease Receivables

(1) Lease contracts

The Group provides finance lease of machinery and equipment. Lease payments are presented in won and lease term is 7 years.

(2) Financial lease receivables as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | | December 31, 2015 | |
|---|---|---|---|---|---|
| | | Minimum lease Payment | Present Value of minimum lease payments | Minimum lease Payment | Present Value of minimum lease payments |
| Less than 1 year | ₩ | 908 | 882 | 735 | 731 |
| 1 ~ 5 years | | 854 | 830 | 1,183 | 1,114 |
| | ₩ | 1,762 | 1,712 | 1,918 | 1,845 |

(3) There are no financial lease receivables which are overdue or impaired as of December 31, 2016.

## 16. Non-financial Assets

Non-financial assets as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | | December 31, 2015 | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Advanced payments | ₩ | 13,893 | 9,337 | 7,277 | 10,646 |
| Prepaid expenses | | 38,709 | 228 | 22,934 | 693 |
| Others | | 70,355 | 4,257 | 3,605 | 2,362 |
| | ₩ | 122,957 | 13,822 | 33,816 | 13,701 |

## 17. Investments in Subsidiaries

(1) Investments in subsidiaries as of December 31, 2016 and 2015 are as follows:

| Company | Key operating activities | Location | Rate of ownership or voting right | |
|---|---|---|---|---|
| | | | **December 31, 2016** | **December 31, 2015** |
| KOSPO Australia Pty., Ltd. | Mining investment | Australia | 100% | 100% |
| KOSPO-Jordan LLC. | Power generation | Jordan | 100% | 100% |
| KOSPO Chile SpA | Foreign investment | Chile | 100% | 100% |
| KOSPO Bylong Pty., Ltd.(*1) | Mining investment | Australia | 100% | - |
| KOSPO Power Services Limitada. | Power generation | Chile | 65% | - |
| KOSPO Youngnam Power Co., Ltd.(*2) | Power generation | Republic of Korea | 50% | 50% |

(*1) Ratio of ownership is ratio of common stock which except for preferred stock which have no voting rights.

(*2) The Company holds 50% plus one of the outstanding shares and can appoint more than half of directors to the board of directors of the entity according to the shareholders agreement.

## 17. Investments in Subsidiaries, Continued

(2) Summarized financial information of investments in subsidiaries as of December 31, 2016 and 2015 are as follows:

(i) As of December 31, 2016

*In millions of won*

| Company | | Assets | Liabilities | Sales | Net profit or loss |
|---|---|---|---|---|---|
| KOSPO Australia Pty., Ltd. | ₩ | 25,625 | 10 | 5,357 | 4,033 |
| KOSPO-Jordan LLC. | | 11,524 | 687 | 7,321 | 317 |
| KOSPO Chile SpA | | 6,656 | 4,787 | - | 125 |
| KOSPO Bylong Pty., Ltd. | | 6,135 | - | - | - |
| KOSPO Power Services Limitada. | | 4,385 | 1,262 | 7,300 | 2,963 |
| KOSPO Youngnam Power Co., Ltd. | | 284,368 | 205,680 | - | (931) |

(ii) As of December 31, 2015

*In millions of won*

| Company | | Assets | Liabilities | Sales | Net profit or loss |
|---|---|---|---|---|---|
| KOSPO Australia Pty., Ltd. | ₩ | 17,692 | 1,584 | 4,729 | (1,016) |
| KOSPO-Jordan LLC. | | 12,414 | 1,117 | 9,967 | 2,129 |
| KOSPO Chile SpA | | 133 | 4,642 | - | (942) |
| KOSPO Youngnam Power Co., Ltd. | | 82,102 | 32,100 | - | 3 |

(3) Significant restrictions on its abilities to subsidiary is as follows:

| Company | Nature and extent of any significant restrictions |
|---|---|
| KOSPO Youngnam Power Co., Ltd. | Principals on subordinated dividends can only be paid to shareholders when all conditions of a loan agreement are satisfied or the prior written consent of a financial institution is obtained. And without prior written consent of a financial institution, it is not allowed transfer all or part of the shares which holds. |

## 17. Investments in Subsidiaries, Continued

(4) Details of non-controlling interest for the year ended December 31, 2016 is as follows:

(i) As of December 31, 2016

*In millions of won*

| | | KOSPO Youngnam Power Co., Ltd. | KOSPO PowerServices Limitada. | KOSPO Bylong Pty., Ltd.(*) |
|---|---|---|---|---|
| Current assets | ₩ | 73,959 | 2,183 | - |
| Non-current assets | | 210,409 | 2,202 | 6,135 |
| Current liabilities | | (15,399) | (1,262) | - |
| Non-current liabilities | | (190,281) | - | - |
| Net assets | | 78,688 | 3,123 | 6,135 |
| Ownership of non-controlling interest | | 50.00% | 35.00% | 99.99% |
| Book value of non-controlling interest | | 39,344 | 1,093 | 6,099 |
| Sales | | - | 7,300 | - |
| Profit for the period | | (931) | 2,963 | - |
| Ownership of non-controlling interest | | 50.00% | 35.00% | 99.99% |
| Profit attributable to Non-controlling interests | | (465) | 1,037 | - |
| Cash flows from operating activities | | (33,767) | 3,732 | - |
| Cash flows from investing activities | | (172,441) | (2,147) | - |
| Cash flows from financing activities | | 218,616 | 6,416 | - |
| Net increase in cash and cash equivalents | | 12,408 | 8,001 | - |

(*) The above is ownership of non-controlling interest and related information. It is based on the ratio of ownership including preferred stock about KOSPO Bylong Pty., Ltd. which was newly acquired.

(ii) As of December 31, 2015

| *In millions of won* | | KOSPO Youngnam Power Co., Ltd. |
|---|---|---|
| Current assets | ₩ | 49,419 |
| Non-current assets | | 32,683 |
| Current liabilities | | (31,100) |
| Non-current liabilities | | (1,000) |
| Net assets | | 50,002 |
| Ownership of non-controlling interest | | 50.00% |
| Book value of non-controlling interest | | 25,001 |
| Sales | | - |
| Profit for the period | | 3 |
| Ownership of non-controlling interest | | 50.00% |
| Profit attributable to Non-controlling interests | | 1 |
| Cash flows from operating activities | | (3,817) |
| Cash flows from investing activities | | (1,744) |
| Cash flows from financing activities | | 51,000 |
| Net increase in cash and cash equivalents | | 45,439 |

## 18. Investments in Associates and Joint Ventures

(1) Investments in associates and joint ventures as of December 31, 2016 and December 31, 2015 are as follows:

(i) For the year ended December 31, 2016

*In millions of won*

| Company | Major operation | Location | December 31, 2016 | | | |
|---|---|---|---|---|---|---|
| | | | Owner-ship | | Acquisition cost | Book Value |
| Associates | | | | | | |
| Taebaek Wind power Co., Ltd. | Power generation | Republic of Korea | 25.0% | ₩ | 3,810 | 4,750 |
| TaebackGuinemi Wind Power Co., Ltd.(*6) | Power generation | Republic of Korea | 25.0% | | 3,420 | 3,131 |
| PyeongChang Wind Power Co., Ltd. | Power generation | Republic of Korea | 25.0% | | 3,875 | 3,383 |
| Daeryun Power Co., Ltd.(*1) | Power generation | Republic of Korea | 19.5% | | 25,477 | 29,873 |
| Changjuk Wind Power Co., Ltd. | Power generation | Republic of Korea | 30.0% | | 3,801 | 6,930 |
| KNH Solar Co., Ltd. | Power generation | Republic of Korea | 27.0% | | 1,296 | 2,073 |
| Korea Offshore Wind Power Co., Ltd.(*2) | Power generation | Republic of Korea | 12.5% | | 6,450 | 4,473 |
| Hadong Mineral Fiber Co., Ltd.(*8) | Recycling fly ashes | Republic of Korea | 8.3% | | 50 | - |
| Jeongam Wind Power Co., Ltd. | Power generation | Republic of Korea | 40.0% | | 5,580 | 4,000 |
| Korea Power Engineering Service Co., Ltd. | Construction | Republic of Korea | 29.0% | | 290 | 2,809 |
| KS Solar Co., Ltd.(*1) | Power generation | Republic of Korea | 19.0% | | 637 | 604 |
| Naepo Green Energy Co., Ltd. | Power generation | Republic of Korea | 25.0% | | 29,200 | 25,438 |
| Samcheok Eco Materials Co., Ltd.(*3) | Recycling fly ashes | Republic of Korea | 2.4% | | 686 | - |
| Solar School Plant Co., Ltd.(*2) | Power generation | Republic of Korea | 8.3% | | 16,650 | 16,652 |
| KEPCO Energy Solution Co., Ltd.(*2) | Energy efficiency | Republic of Korea | 8.3% | | 25,000 | 24,975 |
| | | | | ₩ | 126,222 | 129,091 |
| Joint ventures | | | | | | |
| Daegu Green Power Co., Ltd.(*7) | Power generation | Republic of Korea | 29.0% | | 46,226 | 47,528 |
| Daejung Offshore Wind Power Co., Ltd. | Power generation | Republic of Korea | 49.9% | | 4,990 | 3,105 |
| Kelar S.A.(*4) | Power generation | Chile | 65.0% | | 4,180 | - |
| Daehan Wind Power PSC(*5) | Power generation | Jordan | 50.0% | | 285 | 18 |
| | | | | ₩ | 55,681 | 50,561 |
| | | | | ₩ | 181,903 | 179,652 |

## 18. Investments in Associates and Joint Ventures, Continued

(1) Investments in associates and joint ventures as of December 31, 2016 and 2015 are as follows, continued:

(i) For the year ended December 31, 2016, continued

(*1) The Group holds less than 20% of the equity shares of Daeryun Power Co., Ltd. and KS Solar Co., Ltd.. However, the Group can exercise significant influence by virtue of its contractual right to appoint a director to the board of directors of the entity.
(*2) The Company holds less than 20% of the equity shares of Korea Offshore Wind Power Co., Ltd., Solar School Plant Co., Ltd. and KEPCO Energy Solution Co., Ltd.. However, based on the total of ownership of the Company and an affiliated entity in the KEPCO Group, the KEPCO Group holds more than 20% of the equtiy shares of the entity and exercises significant influence.
(*3) The Group's effective percentage of ownership excluding the redeemable convertible preferred stock shares is 25.5%.
(*4) According to the shareholders' agreement, all critical financial and operating decisions must be agreed to by all ownership parties. For these reasons, the entities are classified as joint ventures.
(*5) The entitiy is classified as a joint venture as all critical financial and operating decisions must be agreed to by all ownership parties according to the joint development agreement.
(*6) Taeback Guinemi Wind Power Co., Ltd. changed its name from Muju Wind power Co., Ltd.
(*7) The entity is reclassified from associates to joint ventures since the terms of the shareholders' agreement had been amended.
(*8) Ratio of ownership on Hadong Mineral Fiber Co., Ltd. has been down to 8.3% temporarily, due to difference of time of capital payment. However, the Group has power to designate the board on Hadong Mineral Fiber Co., Ltd.. After capital payment, the Group's ratio of ownership on Hadong Mineral Fiber Co., Ltd. is 25%.

## 18. Investments in Associates and Joint Ventures, Continued

(1) Investments in associates and joint ventures as of December 31, 2016 and 2015 are as follows, continued:

(ii) For the year ended December 31, 2015

*In millions of won*

| | | | December 31, 2015 | | |
|---|---|---|---|---|---|
| Company | Major operation | Location | Owner-ship | Acquisition cost | Book Value |
| Associates | | | | | |
| Daegu Green Power Co., Ltd. | Power generation | Republic of Korea | 47.8% | 76,193 | 80,267 |
| Taebaek Wind power Co., Ltd. | Power generation | Republic of Korea | 25.0% | 3,810 | 4,956 |
| TaebackGuinemi Wind Power Co., Ltd.(*5) | Power generation | Republic of Korea | 25.0% | 2,850 | 2,587 |
| PyeongChang Wind Power Co., Ltd. | Power generation | Republic of Korea | 25.0% | 3,875 | 3,402 |
| Jinan Jangsu Wind Power Co., Ltd. | Power generation | Republic of Korea | 25.0% | 100 | 77 |
| Daeryun Power Co., Ltd.(*1) | Power generation | Republic of Korea | 19.5% | 25,477 | 36,156 |
| Changjuk Wind Power Co., Ltd. | Power generation | Republic of Korea | 30.0% | 3,801 | 6,143 |
| KNH Solar Co., Ltd. | Power generation | Republic of Korea | 27.0% | 1,296 | 1,924 |
| Busan Solar Co., Ltd.(*1) | Power generation | Republic of Korea | 19.8% | 793 | 925 |
| Korea Offshore Wind Power Co., Ltd.(*2) | Power generation | Republic of Korea | 12.5% | 1,950 | 658 |
| Hadong Mineral Fiber Co., Ltd. | Recycling fly ashes | Republic of Korea | 25.0% | 50 | - |
| Jeongam Wind Power Co., Ltd. | Power generation | Republic of Korea | 40.0% | 1,680 | 702 |
| Korea Power Engineering Service Co., Ltd. | Construction | Republic of Korea | 29.0% | 290 | 1,805 |
| KS Solar Co., Ltd.(*1) | Power generation | Republic of Korea | 19.0% | 637 | 618 |
| Naepo Green Energy Co., Ltd. | Power generation | Republic of Korea | 25.0% | 29,200 | 26,745 |
| Samcheok Eco Materials Co., Ltd.(*3) | Recycling fly ashes | Republic of Korea | 2.7% | 686 | - |
| | | | | ₩ 152,688 | 166,965 |
| Joint ventures | | | | | |
| Daejung Offshore Wind Power Co., Ltd. | Power generation | Republic of Korea | 49.9% | 4,990 | 3,352 |
| Kelar S.A.(*4) | Power generation | Chile | 65.0% | 4,180 | - |
| | | | | ₩ 9,170 | 3,352 |
| | | | | ₩ 161,858 | 170,317 |

## 18. Investments in Associates and Joint Ventures, Continued

(1) Investments in associates and joint ventures as of December 31, 2016 and 2015 are as follows, continued:

(ii) For the year ended December 31, 2015

(*1) The Group holds less than 20% of the equity shares of Daeryun Power Co., Ltd., Busan Solar Co., Ltd. and KS Solar Co., Ltd.. However, the Group can exercise significant influence by virtue of its contractual right to appoint a director to the board of directors of the entity.
(*2) The Company holds less than 20% of the equity shares of Korea Offshore Wind Power Co., Ltd., Solar School Plant Co., Ltd. and KEPCO Energy Solution Co., Ltd.. However, based on the total of ownership of the Company and an affiliated entity in the KEPCO Group, the KEPCO Group holds more than 20% of the equtiy shares of the entity and exercises significant influence.
(*3) The Group's effective percentage of ownership excluding the redeemable convertible preferred stock shares is 25.5%.
(*4) According to the shareholders' agreement, all critical financial and operating decisions must be agreed to by all ownership parties. For these reasons, the entities are classified as joint ventures.
(*5) Taeback Guinemi Wind Power Co., Ltd. changed its name from Muju Wind power Co., Ltd.

## 18. Investments in Associates and Joint Ventures, Continued

(2) Changes in investments in associates and joint ventures for the years ended December 31, 2016 and 2015 are as follows:

(i) For the year ended December 31, 2016

*In millions of won*

| Company | | Beginning balance | Acquisi-tions | Disposal | Equity profit (loss) | Changes in equity | Others | Ending balance |
|---|---|---|---|---|---|---|---|---|
| Associates | | | | | | | | |
| Daegu Green Power Co., Ltd.(*) | ₩ | 80,267 | 3,347 | (34,421) | (1,814) | 148 | (47,527) | - |
| Taebaek Wind Power Co., Ltd. | | 4,956 | - | - | (206) | - | - | 4,750 |
| TaebackGuinemi Wind Power Co., Ltd. | | 2,587 | 570 | - | (26) | - | - | 3,131 |
| PyeongChang Wind Power Co., Ltd. | | 3,402 | - | - | (19) | - | - | 3,383 |
| Jinan Jangsu Wind Power Co., Ltd. | | 77 | - | (64) | (13) | - | - | - |
| Daeryun Power Co., Ltd. | | 36,156 | - | - | (6,282) | - | (1) | 29,873 |
| Changjuk Wind Power Co., Ltd. | | 6,143 | - | - | 977 | - | (190) | 6,930 |
| KNH Solar Co., Ltd. | | 1,924 | - | - | 144 | 5 | - | 2,073 |
| Busan Solar Co., Ltd. | | 925 | - | (887) | (38) | - | - | - |
| Korea Offshore Wind Power Co., Ltd. | | 658 | 4,500 | - | (620) | (65) | - | 4,473 |
| Hadong Mineral Fiber Co., Ltd. | | - | - | - | - | - | - | - |
| Jeongam Wind Power Co., Ltd. | | 702 | 3,900 | - | (602) | - | - | 4,000 |
| Korea Power Engineering Service Co., Ltd. | | 1,805 | - | - | 1,004 | - | - | 2,809 |
| KS Solar Co., Ltd. | | 618 | - | - | (14) | - | - | 604 |
| Naepo Green Energy Co., Ltd. | | 26,745 | - | - | (1,307) | - | - | 25,438 |
| Samcheok Eco Materials Co., Ltd. | | - | - | - | - | - | - | - |
| Solar School Plant Co., Ltd. | | - | 16,650 | - | 2 | - | - | 16,652 |
| KEPCO Energy Solution Co., Ltd. | | - | 25,000 | - | (25) | - | - | 24,975 |
| | | 166,965 | 53,967 | (35,372) | (8,839) | 88 | (47,718) | 129,091 |
| Joint ventures | | | | | | | | |
| Daegu Green Power Co., Ltd.(*) | | - | - | - | - | - | 47,528 | 47,528 |
| Daejung Offshore Wind Power Co., Ltd. | | 3,352 | - | - | (337) | - | - | 3,015 |
| Kelar S.A. | | - | - | - | - | - | - | - |
| Daehan Wind Power PSC. | | - | 285 | - | (261) | (6) | - | 18 |
| | | 3,352 | 285 | - | (598) | (6) | 47,528 | 50,561 |
| | ₩ | 170,317 | 54,252 | (35,372) | (9,437) | 82 | (190) | 179,652 |

(*) The entity is reclassified from associates to joint ventures since the terms of the shareholders' agreement had been amended.

## 18. Investments in Associates and Joint Ventures, Continued

(2) Changes in investments in associates and joint ventures for the years ended December 31, 2016 and 2015 are as follows, continued:

(ii) For the year ended December 31, 2015

*In millions of won*

| Company | | Beginning balance | Acquisi-tions | Equity profit (loss) | Changes in equity | Others | Ending balance |
|---|---|---|---|---|---|---|---|
| Associates | | | | | | | |
| Daegu Green Power Co., Ltd. | ₩ | 71,387 | - | 8,903 | - | (23) | 80,267 |
| Taebaek Wind Power Co., Ltd. | | 5,524 | - | (568) | - | - | 4,956 |
| TaebackGuinemi Wind Power Co., Ltd. | | 2,706 | - | (119) | - | - | 2,587 |
| PyeongChang Wind Power Co., Ltd. | | 3,693 | - | (291) | - | - | 3,402 |
| Jinan Jangsu Wind Power Co., Ltd. | | 77 | - | - | - | - | 77 |
| Daeryun Power Co., Ltd. | | 41,952 | - | (5,799) | - | 3 | 36,156 |
| Changjuk Wind Power Co., Ltd. | | 6,486 | - | (343) | - | - | 6,143 |
| KNH Solar Co., Ltd. | | 1,744 | - | 177 | 3 | - | 1,924 |
| Busan Solar Co., Ltd. | | 853 | - | 72 | - | - | 925 |
| Korea Offshore Wind Power Co., Ltd. | | 1,304 | - | (646) | - | - | 658 |
| Hadong Mineral Fiber Co., Ltd. | | 3 | - | (3) | - | - | - |
| Jeongam Wind Power Co., Ltd. | | 93 | 880 | (271) | - | - | 702 |
| Korea Power Engineering Service Co., Ltd. | | 1,334 | - | 540 | - | (69) | 1,805 |
| KS Solar Co., Ltd. | | 325 | - | 293 | - | - | 618 |
| Naepo Green Energy Co., Ltd. | | 28,064 | - | (1,319) | - | - | 26,745 |
| Samcheok Eco Materials Co., Ltd. | | 212 | - | (177) | (35) | - | - |
| | | 165,757 | 880 | 449 | (32) | (89) | 166,965 |
| Joint ventures | | | | | | | |
| Daejung Offshore Wind Power Co., Ltd. | | 3,711 | - | (359) | - | - | 3,352 |
| Kelar S.A. | | 2,750 | - | - | (2,628) | (122) | - |
| | | 6,461 | - | (359) | (2,628) | (122) | 3,352 |
| | ₩ | 172,218 | 880 | 90 | (2,660) | (211) | 170,317 |

## 18. Investments in Associates and Joint Ventures, Continued

(3) Summarized financial information of investments in associates and joint ventures as of December 31, 2016 and 2015 are as follows:

(i) As of December 31, 2016

*In millions of won*

| Company | | Assets | Liabilities | Sales | Net profit or loss |
|---|---|---|---|---|---|
| Associates | | | | | |
| Taebaek Wind Power Co., Ltd. | ₩ | 43,162 | 24,162 | 5,741 | (2,796) |
| TaebackGuinemi Wind Power Co., Ltd. | | 12,523 | 1 | - | (106) |
| PyeongChang Wind Power Co., Ltd. | | 75,440 | 61,909 | 3,997 | (45) |
| Daeryun Power Co., Ltd. | | 793,283 | 644,930 | 249,558 | (32,291) |
| Changjuk Wind Power Co., Ltd. | | 37,878 | 15,162 | 5,782 | 1,739 |
| KNH Solar Co., Ltd. | | 25,878 | 18,199 | 4,006 | 638 |
| Korea Offshore Wind Power Co., Ltd | | 37,826 | 2,048 | - | (4,960) |
| Hadong Mineral Fiber Co., Ltd. | | - | 20 | - | - |
| Jeongam Wind Power Co., Ltd | | 13,199 | 3,199 | - | (1,496) |
| Korea Power Engineering Service Co., Ltd. | | 13,401 | 3,713 | 27,394 | 3,463 |
| KS Solar Co., Ltd. | | 27,213 | 24,035 | 4,152 | (79) |
| Naepo Green Energy Co., Ltd. | | 104,029 | 2,276 | 4,912 | (5,230) |
| Samcheok Eco Materials Co., Ltd. | | 24,143 | 254 | - | (1,945) |
| Solar School Plant Co., Ltd. | | 200,268 | 259 | 1 | 9 |
| KEPCO Energy Solution Co., Ltd. | | 299,933 | 233 | - | (300) |
| Joint Ventures | | | | | |
| Daegu Green Power Co., Ltd. | | 636,438 | 547,017 | 265,621 | (3,981) |
| Daejung Offshore Wind Power Co., Ltd. | | 6,076 | 34 | - | (675) |
| Kelar S.A. | | 617,803 | 712,124 | - | (4,109) |
| Daehan Wind Power PSC | | 750 | 714 | - | (523) |

(ii) As of December 31, 2015

*In millions of won*

| Company | | Assets | Liabilities | Sales | Net profit or loss |
|---|---|---|---|---|---|
| Associates | | | | | |
| Daegu Green Power Co., Ltd. | ₩ | 639,118 | 471,497 | 321,273 | 18,625 |
| Taebaek Wind Power Co., Ltd. | | 48,009 | 26,212 | 6,626 | (302) |
| TaebackGuinemi Wind Power Co., Ltd. | | 10,349 | - | - | (477) |
| PyeongChang Wind Power Co., Ltd. | | 62,565 | 48,959 | - | (1,164) |
| Jinan Jangsu Wind Power Co., Ltd. | | 306 | - | - | (1) |
| Daeryun Power Co., Ltd. | | 838,199 | 657,551 | 279,787 | (29,806) |
| Changjuk Wind Power Co., Ltd. | | 41,444 | 19,053 | 6,472 | 772 |
| KNH Solar Co., Ltd. | | 27,254 | 20,105 | 4,399 | 861 |
| Busan Solar Co., Ltd. | | 26,059 | 21,367 | 4,267 | 383 |
| Korea Offshore Wind Power Co., Ltd. | | 7,579 | 2,317 | - | (4,213) |
| Hadong Mineral Fiber Co., Ltd. | | 2 | 21 | - | (30) |
| Jeongam Wind Power Co., Ltd. | | 2,053 | 299 | - | (621) |
| Korea Power Engineering Service Co., Ltd. | | 9,194 | 2,968 | 25,925 | 2,296 |
| KS Solar Co., Ltd. | | 29,745 | 26,469 | 4,667 | 278 |
| Naepo Green Energy Co., Ltd. | | 108,167 | 1,184 | 3,126 | (5,274) |
| Samcheok Eco Materials Co., Ltd. | | 23,119 | 735 | - | (2,171) |
| Joint Ventures | | | | | |
| Daejung Offshore Wind Power Co., Ltd. | | 6,795 | 78 | - | (606) |
| Kelar S.A. | | 557,987 | 652,254 | - | (60,598) |

## 18. Investments in Associates and Joint Ventures, Continued

(4) Shareholders' agreements on investments in associates and joint ventures that may cause future economic costs or cash outflows are as follows:

| Company | Shareholders' agreements |
|---|---|
| Taebaek Wind Power Co., Ltd. | The Group has the obligation to buy the other shareholders' shares at fair value through a consultation process with all the shareholders involved about timing of acquisition, sizes, etc. by taking financial conditions, business situation and other various circumstances into consideration, in case the other shareholders want to sell their shares after the end of warranty period of the wind power equipment based on the equipment and material supply contract. |
| Pyeongchang Wind Power Co., Ltd. | In case non-controlling shareholders decide to dispose of their shares in Pyeongchang Wind Power Co., Ltd. after commercial operation of the power plant has started, the Group is obligated to acquire those shares at fair value. |
| Jeongam Wind Power Co., Ltd | The Group is obligated to buy the other shareholders' shares at fair value, as each of the other shareholders exercise their put option to sell their shares after completing the construction of a power plant. |
| Daejung Offshore Wind Power Co., Ltd. | The Group has the obligation to buy the shares of Samsung Heavy Industries Co., Ltd., the other shareholder of Daejung Offshore Wind Power Co., Ltd., at fair value by evaluating the reliability and economic feasibility of equipment installed by Samsung Heavy Industries Co., Ltd. after the end of the warranty period of the wind power equipment based on the equipment and material supply contract. |
| Samcheok Eco Materials Co., Ltd. | The Company has the rights to purchase the stocks should preferred stockholders elect to sell their stocks on the expected sell date (3 years from preferred stock payment date) and is required to guarantee the promised yield when preferred stockholders sell their stocks. |

## 18. Investments in Associates and Joint Ventures, Continued

(5) Significant restrictions on associates or joint ventures are as follows:

| Company | Nature and extent of any significant restrictions |
|---|---|
| Daegu Green Power Co., Ltd. | Principals on subordinated loans or dividends can only be paid when all conditions of the loan agreement are satisfied or prior written consent of financial institutions is obtained. Shares cannot be wholly or partially transferred without prior written consent of financial institutions is obtained. |
| Taebaek Wind Power Co., Ltd. | Financial institutions can reject or defer an approval with regard to the request for fund executions on subordinated loans of shareholders in order to pay senior loans based on the loan agreement. |
| Pyeongchang Wind Power Co., Ltd. | Principals on subordinated loans or dividends can only be paid to shareholders when all conditions of a loan agreement are satisfied or the prior written consent of a financial institution is obtained. |
| Daeryun Power Co., Ltd. | Principals on subordinated loans or dividends can only be paid to shareholders when all conditions of a loan agreement are satisfied or the prior written consent of a financial institution is obtained. |
| Changjuk Wind Power Co., Ltd. | Principals on subordinated loans or dividends can only be paid to shareholders when all conditions of a loan agreement are satisfied or the prior written consent of a financial institution is obtained. |
| KNH Solar Co., Ltd. | Principals on subordinated loans or dividends can only be paid to shareholders when the prior written consent of a financial institution is obtained. |
| KS Solar Co., Ltd. | Dividends can only be paid to shareholders when all conditions of a loan agreement are satisfied. |

## 19. Property, Plant and Equipment

(1) Property, plant and equipment as of December 31, 2016 and 2015 are as follows:

(i) As of December 31, 2016

| *In millions of won* | | Acquisition cost | Government grants | Accumulated depreciation | Accumulated impairment loss | Book value |
|---|---|---|---|---|---|---|
| Land | ₩ | 1,038,443 | - | - | - | 1,038,443 |
| Buildings | | 1,314,120 | (100) | (437,262) | (853) | 875,905 |
| Structures | | 1,489,995 | - | (493,949) | (1,183) | 994,863 |
| Machinery | | 6,041,291 | (284) | (2,296,993) | - | 3,744,014 |
| Ships | | 3 | - | (1) | - | 2 |
| Vehicles | | 9,562 | - | (6,094) | - | 3,468 |
| Equipment | | 136,473 | (13) | (93,997) | - | 42,463 |
| Tools | | 18,466 | - | (15,786) | - | 2,680 |
| Others | | 1,409 | - | (376) | - | 1,033 |
| Construction-in-progress | | 1,513,197 | - | - | - | 1,513,197 |
| Finance lease assets | | 286,224 | - | (74,701) | - | 211,523 |
| | ₩ | 11,849,183 | (397) | (3,419,159) | (2,036) | 8,427,591 |

## 19. Property, Plant and Equipment, Continued

(1)Property, plant and equipment as of December 31, 2016 and 2015 are as follows, continued:

(ii) As of December 31, 2015

| *In millions of won* | | Acquisition cost | Government grants | Accumulated depreciation | Accumulated impairment loss | Book value |
|---|---|---|---|---|---|---|
| Land | ₩ | 670,864 | - | - | - | 670,864 |
| Buildings | | 1,021,261 | (104) | (397,497) | (853) | 622,807 |
| Structures | | 1,259,003 | - | (446,599) | (1,183) | 811,221 |
| Machinery | | 4,677,854 | (321) | (1,955,430) | (33,841) | 2,688,262 |
| Ships | | 3 | - | (1) | - | 2 |
| Vehicles | | 6,941 | - | (5,203) | - | 1,738 |
| Equipment | | 126,255 | (149) | (79,560) | - | 46,546 |
| Tools | | 17,671 | - | (14,900) | - | 2,771 |
| Others | | 1,410 | - | (282) | - | 1,128 |
| Construction-in-progress | | 3,209,906 | - | - | - | 3,209,906 |
| Finance lease assets | | 168,310 | - | (65,637) | - | 102,673 |
| | ₩ | 11,159,478 | (574) | (2,965,109) | (35,877) | 8,157,918 |

(2) Changes in property, plant and equipment for the years ended December 31, 2016 and 2015 are as follows:

(i) For the year ended December 31, 2016

| *In millions of won* | | Beginning balance | Acquisition/ Capital expenditure | Disposal | Depreciation | Others(*) | Ending balance |
|---|---|---|---|---|---|---|---|
| Land | ₩ | 670,864 | - | (812) | - | 368,391 | 1,038,443 |
| Buildings | | 622,911 | 42 | (355) | (39,917) | 293,324 | 876,005 |
| (Government grants) | | (104) | - | - | 4 | - | (100) |
| Structures | | 811,221 | 4 | - | (47,350) | 230,988 | 994,863 |
| Machinery | | 2,688,583 | 66,114 | (14,932) | (403,074) | 1,407,607 | 3,744,298 |
| (Government grants) | | (321) | - | - | 37 | - | (284) |
| Ships | | 2 | - | - | - | - | 2 |
| Vehicles | | 1,738 | 276 | (85) | (944) | 2,483 | 3,468 |
| Equipment | | 46,695 | 1,965 | (1) | (18,387) | 12,204 | 42,476 |
| (Government grants) | | (149) | - | - | 136 | - | (13) |
| Tools | | 2,771 | 167 | (2) | (1,367) | 1,111 | 2,680 |
| Others | | 1,128 | - | - | (95) | - | 1,033 |
| Construction-in-progress | | 3,209,906 | 633,059 | (1,442) | - | (2,328,326) | 1,513,197 |
| Finance lease assets | | 102,673 | - | - | (9,039) | 117,889 | 211,523 |
| | ₩ | 8,157,918 | 701,627 | (17,629) | (519,996) | 105,671 | 8,427,591 |

(*) 'Others' primarily include capitalized retirement benefit expense, capitalized borrowing costs and others.

## 19. Property, Plant and Equipment, Continued

(2) Changes in property, plant and equipment for the years ended December 31, 2016 and 2015 are as follows, continued:

(ii) For the year ended December 31, 2015

| *In millions of won* | | Beginning balance | Acquisition/ Capital expenditure | Disposal | Depreciation | Others(*) | Ending balance |
|---|---|---|---|---|---|---|---|
| Land | ₩ | 644,231 | - | (3,700) | - | 30,333 | 670,864 |
| Buildings | | 509,945 | 173 | (454) | (39,738) | 152,985 | 622,911 |
| (Government grants) | | (108) | - | - | 4 | - | (104) |
| Structures | | 538,388 | 22 | (370) | (47,012) | 320,193 | 811,221 |
| Machinery | | 2,718,423 | 42,687 | (19,810) | (413,396) | 360,679 | 2,688,583 |
| (Government grants) | | (363) | - | - | 42 | - | (321) |
| Ships | | 3 | - | - | (1) | - | 2 |
| Vehicles | | 1,601 | 8 | - | (651) | 780 | 1,738 |
| Equipment | | 27,342 | 2,019 | 2 | (17,743) | 35,075 | 46,695 |
| (Government grants) | | (390) | - | - | 241 | - | (149) |
| Tools | | 3,145 | 125 | - | (1,544) | 1,045 | 2,771 |
| Others | | 1,221 | - | - | (93) | - | 1,128 |
| Construction-in-progress | | 3,098,816 | 916,628 | (13,178) | - | (792,360) | 3,209,906 |
| Finance lease assets | | 90,667 | - | (230) | (9,111) | 21,347 | 102,673 |
| | ₩ | 7,632,921 | 961,662 | (37,740) | (529,002) | 130,077 | 8,157,918 |

(*) 'Others' primarily include capitalized retirement benefit expense, capitalized borrowing costs and others.

## 20. Intangible Assets

(1) Intangible assets as of December 31, 2016 and 2015 are as follows:

(i) As of December 31, 2016

| *In millions of won* | | Acquisition cost | Accumulated amortization | Accumulated impairment loss | Book value |
|---|---|---|---|---|---|
| Computer software | ₩ | 23,771 | (18,619) | - | 5,152 |
| Copyright, patent right and industrial property | | 71 | (64) | - | 7 |
| Mining right | | 13,096 | (1,876) | - | 11,220 |
| Development costs | | 25,602 | (23,307) | - | 2,295 |
| Usable and profitable donation assets | | 1,469 | (307) | - | 1,162 |
| Land use right | | 79 | (66) | - | 13 |
| Others | | 6,915 | (1,906) | (95) | 4,914 |
| | ₩ | 71,003 | (46,145) | (95) | 24,763 |

## 20. Intangible Assets, Continued

(1) Intangible assets as of December 31, 2016 and December 31, 2015 are as follows, continued:

(ii) As of December 31, 2015

| *In millions of won* | Acquisition cost | Accumulated amortization | Accumulated impairment loss | Book value |
|---|---|---|---|---|
| Computer software | ₩ 21,510 | (15,223) | - | 6,287 |
| Copyright, patent right and industrial property | 71 | (60) | - | 11 |
| Mining right | 8,620 | (1,424) | - | 7,196 |
| Development costs | 24,649 | (20,045) | - | 4,604 |
| Usable and profitable donation assets | 1,469 | (160) | - | 1,309 |
| Land use right | 79 | (58) | - | 21 |
| Others | 7,199 | (1,601) | (95) | 5,503 |
| | ₩ 63,597 | (38,571) | (95) | 24,931 |

(2) Changes in intangible assets for the years ended December 31, 2016 and 2015 are as follows:

(i) For the year ended December 31, 2016

| *In millions of won* | Beginning balance | Acquisition/ Capital expenditure | Disposal | Amortization | Others | Ending balance |
|---|---|---|---|---|---|---|
| Computer software | ₩ 6,287 | 28 | - | (3,395) | 2,232 | 5,152 |
| Copyright, patent right and industrial property | 11 | - | - | (4) | - | 7 |
| Mining right | 7,196 | 4,242 | - | (416) | 198 | 11,220 |
| Development costs | 4,604 | - | - | (3,262) | 953 | 2,295 |
| Usable and profitable donation assets | 1,309 | - | - | (147) | - | 1,162 |
| Land use right | 21 | - | - | (8) | - | 13 |
| Others | 5,503 | - | (260) | (332) | 3 | 4,914 |
| | ₩ 24,931 | 4,270 | (260) | (7,564) | 3,386 | 24,763 |

(ii) For the year ended December 31, 2015

| *In millions of won* | Beginning balance | Acquisition/ Capital expenditure | Amortization | Others | Ending balance |
|---|---|---|---|---|---|
| Computer software | ₩ 6,726 | 144 | (3,679) | 3,096 | 6,287 |
| Copyright, patent right and industrial property | 16 | - | (5) | - | 11 |
| Mining right | 7,862 | 142 | (405) | (403) | 7,196 |
| Development costs | 8,502 | - | (4,838) | 940 | 4,604 |
| Usable and profitable donation assets | 1,456 | - | (147) | - | 1,309 |
| Land use right | 28 | - | (7) | - | 21 |
| Others | 5,384 | - | (328) | 447 | 5,503 |
| | ₩ 29,974 | 286 | (9,409) | 4,080 | 24,931 |

## 21. Trade and Other Payables

Trade and other payables as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | | December 31, 2015 | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Trade payables | ₩ | 249,279 | - | 103,995 | - |
| Other payables | | 111,761 | 19,629 | 71,991 | 24,453 |
| Accrued expenses | | 39,914 | - | 38,318 | - |
| Other deposits | | 128,417 | - | 121,793 | - |
| | ₩ | 529,371 | 19,629 | 336,097 | 24,453 |

## 22. Loans and Borrowings

(1) Details of borrowings as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | December 31, 2016 | December 31, 2015 |
|---|---|---|
| Current Liabilities: | | |
| Current portion of long-term borrowings | 366 | 566 |
| Current portion of long-term debentures | 770,850 | 480,000 |
| Less: discount on debentures | (309) | (278) |
| | 770,907 | 480,288 |
| Non-current Liabilities: | | |
| Long-term borrowings | 191,985 | 3,801 |
| Debentures | 3,822,550 | 4,258,800 |
| Less: discount on debentures | (7,192) | (9,067) |
| | 4,007,343 | 4,253,534 |
| | ₩ 4,778,251 | 4,733,822 |

(2) Repayment schedule of borrowings and debentures as of December 31, 2016 and 2015 are as follows:

(i) As of December 31, 2016

| *In millions of won* | | Borrowings | Debentures |
|---|---|---|---|
| Less than 1 year | ₩ | 366 | 770,850 |
| 1-5 years | | 18,038 | 2,202,550 |
| More than 5 years | | 173,947 | 1,620,000 |
| | ₩ | 192,351 | 4,593,400 |

## 22. Loans and Borrowings, Continued

(2) Repayment schedule of borrowings and debentures as of December 31, 2016 and 2015 are as follows, continued:

(ii) As of December 31, 2015

| *In millions of won* | | Borrowings | Debentures |
|---|---|---|---|
| Less than 1 year | ₩ | 566 | 480,000 |
| 1-5 years | | 1,914 | 2,578,800 |
| More than 5 years | | 1,887 | 1,680,000 |
| | ₩ | 4,367 | 4,738,800 |

(3) Long-term borrowings as of December 31, 2016 and 2015 are as follows:

*In millions of won*

| Lender | Description | Annual interest rate | | Maturity | | **December 31, 2016** | **December 31, 2015** |
|---|---|---|---|---|---|---|---|
| Hana Bank | Energy rationalization | Floating rate | 1.75% | 2019.05.19 | ₩ | - | 650 |
| Korea Resources Corporation | Foreign operation | Floating rate | 0.75% | 2023.03.15 | | 1,871 | 2,171 |
| Korea Resources Corporation | Foreign operation | Floating rate | 0.75% | 2023.06.15 | | 73 | 84 |
| Korea Resources Corporation | Foreign operation | Floating rate | 0.75% | 2023.12.15 | | 190 | 217 |
| Korea Resources Corporation | Foreign operation | Floating rate | 0.75% | 2024.06.15 | | 56 | 63 |
| Korea Resources Corporation | Foreign operation | Floating rate | 0.75% | 2024.09.15 | | 161 | 182 |
| Shinhan BNP Paribas ITMC Co.,Ltd. | Subordinated loans | Fixed rate | 8.00% | 2039.12.29 | | 80,000 | 1,000 |
| Shinhan Bank | senior loan | Fixed rate | 4.10% | 2035.03.31 | | 55,000 | - |
| Shinhan Bank | senior loan | Floating rate | 3yr KTB rate+1.1% | 2035.03.31 | | 55,000 | - |
| | | | | | | 192,351 | 4,367 |
| | | | | Less: current portion | | (366) | (566) |
| | | | | | ₩ | 191,985 | 3,801 |

## 22. Loans and Borrowings, Continued

(4) Domestic debentures as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | Issue date | Maturity date | Annual interest rate | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|---|---|---|
| Corporate bond #16-2 | 2011.04.19 | 2016.04.19 | Fixed rate | 4.31% | - | 110,000 |
| Corporate bond #17-1 | 2011.07.19 | 2016.07.19 | Fixed rate | 4.08% | - | 150,000 |
| Corporate bond #17-2 | 2011.07.19 | 2018.07.19 | Fixed rate | 4.18% | 100,000 | 100,000 |
| Corporate bond #17-3 | 2011.07.19 | 2021.07.19 | Fixed rate | 4.28% | 100,000 | 100,000 |
| Corporate bond #18-1 | 2012.09.10 | 2019.09.10 | Fixed rate | 3.18% | 100,000 | 100,000 |
| Corporate bond #18-2 | 2012.09.10 | 2022.09.10 | Fixed rate | 3.23% | 90,000 | 90,000 |
| Corporate bond #18-3 | 2012.09.10 | 2027.09.10 | Fixed rate | 3.31% | 110,000 | 110,000 |
| Corporate bond #19-1 | 2013.03.08 | 2017.03.08 | Fixed rate | 2.79% | 90,000 | 90,000 |
| Corporate bond #19-2 | 2013.03.08 | 2020.03.08 | Fixed rate | 2.98% | 80,000 | 80,000 |
| Corporate bond #19-3 | 2013.03.08 | 2023.03.08 | Fixed rate | 3.09% | 130,000 | 130,000 |
| Corporate bond #20-1 | 2013.04.09 | 2017.04.09 | Fixed rate | 2.60% | 90,000 | 90,000 |
| Corporate bond #20-2 | 2013.04.09 | 2020.04.09 | Fixed rate | 2.78% | 100,000 | 100,000 |
| Corporate bond #20-3 | 2013.04.09 | 2023.04.09 | Fixed rate | 2.89% | 210,000 | 210,000 |
| Corporate bond #21-1 | 2013.09.17 | 2016.09.17 | Fixed rate | 3.03% | - | 100,000 |
| Corporate bond #21-2 | 2013.09.17 | 2020.09.17 | Fixed rate | 3.53% | 100,000 | 100,000 |
| Corporate bond #22-1 | 2013.10.30 | 2016.10.30 | Fixed rate | 3.04% | - | 120,000 |
| Corporate bond #22-2 | 2013.10.30 | 2018.10.30 | Fixed rate | 3.33% | 40,000 | 40,000 |
| Corporate bond #22-3 | 2013.10.30 | 2023.10.30 | Fixed rate | 3.62% | 40,000 | 40,000 |
| Corporate bond #23-1 | 2013.11.26 | 2017.11.26 | Fixed rate | 3.40% | 80,000 | 80,000 |
| Corporate bond #23-2 | 2013.11.26 | 2023.11.26 | Fixed rate | 3.88% | 100,000 | 100,000 |
| Corporate bond #24-1 | 2014.01.21 | 2019.01.21 | Fixed rate | 3.49% | 150,000 | 150,000 |
| Corporate bond #24-2 | 2014.01.21 | 2024.01.21 | Fixed rate | 3.80% | 50,000 | 50,000 |
| Corporate bond #26-1 | 2014.03.06 | 2019.03.06 | Fixed rate | 3.31% | 50,000 | 50,000 |
| Corporate bond #26-2 | 2014.03.06 | 2024.03.06 | Fixed rate | 3.71% | 160,000 | 160,000 |
| Corporate bond #26-3 | 2014.03.06 | 2034.03.06 | Fixed rate | 3.92% | 90,000 | 90,000 |
| Corporate bond #27-1 | 2014.05.13 | 2019.05.13 | Fixed rate | 3.24% | 70,000 | 70,000 |
| Corporate bond #27-2 | 2014.05.13 | 2024.05.13 | Fixed rate | 3.58% | 260,000 | 260,000 |
| Corporate bond #27-3 | 2014.05.13 | 2029.05.13 | Fixed rate | 3.73% | 60,000 | 60,000 |
| Corporate bond #28-1 | 2014.07.10 | 2017.07.10 | Fixed rate | 2.67% | 110,000 | 110,000 |
| Corporate bond #28-2 | 2014.07.10 | 2021.07.10 | Fixed rate | 3.07% | 60,000 | 60,000 |
| Corporate bond #29-1 | 2014.09.01 | 2017.09.01 | Fixed rate | 2.59% | 180,000 | 180,000 |
| Corporate bond #29-2 | 2014.09.01 | 2019.09.01 | Fixed rate | 2.81% | 60,000 | 60,000 |
| Corporate bond #30-1 | 2014.11.07 | 2019.11.07 | Fixed rate | 2.32% | 190,000 | 190,000 |
| Corporate bond #30-2 | 2014.11.07 | 2024.11.07 | Fixed rate | 2.69% | 60,000 | 60,000 |
| Corporate bond #31 | 2014.12.10 | 2017.12.10 | Fixed rate | 2.25% | 100,000 | 100,000 |
| Private bond #32 | 2015.02.12 | 2018.02.12 | Fixed rate | 1.96% | 100,000 | 100,000 |
| Corporate bond #33-1 | 2015.06.04 | 2018.06.04 | Fixed rate | 1.90% | 60,000 | 60,000 |
| Corporate bond #33-2 | 2015.06.04 | 2022.06.04 | Fixed rate | 2.40% | 40,000 | 40,000 |
| Corporate bond #34-1 | 2015.07.02 | 2018.07.02 | Fixed rate | 1.91% | 70,000 | 70,000 |
| Corporate bond #34-2 | 2015.07.02 | 2020.07.02 | Fixed rate | 2.30% | 130,000 | 130,000 |
| Corporate bond #34-3 | 2015.07.02 | 2025.07.02 | Fixed rate | 2.66% | 120,000 | 120,000 |
| Corporate bond #35 | 2015.11.11 | 2020.11.11 | Fixed rate | 2.10% | 60,000 | 60,000 |
| Corporate bond #36-1 | 2016.09.06 | 2021.09.06 | Fixed rate | 1.46% | 80,000 | - |
| Corporate bond #36-2 | 2016.09.06 | 2026.09.06 | Fixed rate | 1.61% | 60,000 | - |
| Corporate bond #37-1 | 2016.10.12 | 2021.10.12 | Fixed rate | 1.57% | 40,000 | - |
| Corporate bond #37-2 | 2016.10.12 | 2026.10.12 | Fixed rate | 1.74% | 30,000 | - |
| Corporate bond #38-1 | 2016.11.04 | 2019.11.04 | Fixed rate | 1.62% | 70,000 | - |
| Corporate bond #38-2 | 2016.11.04 | 2026.11.04 | Fixed rate | 1.83% | 20,000 | - |
| Corporate bond #39 | 2016.12.02 | 2026.12.02 | Fixed rate | 2.35% | 20,000 | - |
| | | | | | 4,110,000 | 4,270,000 |

## 22. Loans and Borrowings, Continued

(4) Domestic debentures as of December 31, 2016 and 2015 are as follows, continued:

| | | |
|---|---|---|
| Less: discount on debentures | (6,549) | (7,545) |
| Less: current portion | (650,000) | (480,000) |
| More : current portion-discount on debenture | 304 | 278 |
| ₩ | 3,453,755 | 3,782,733 |

(5) Foreign debentures as of December 31, 2016 and 2015 are as follows:

(i) As of December 31, 2016

| *In millions of won, In thousands of usd* | Issue date | Maturity date | Annual interest rate | | USD | | Won equivalents |
|---|---|---|---|---|---|---|---|
| Euro bond #13 | 2014.02.05 | 2018.02.05 | Fixed rate | 1.88% | $ 300,000 | ₩ | 362,550 |
| Corporate bond #25 | 2015.01.28 | 2017.01.28 | Floating rate | 3M Libor + 1.05% | 100,000 | | 120,850 |
| | | | | | $ 400,000 | | 483,400 |
| | | | | Less: discount on debentures | | | (952) |
| | | | | Less: current portion | | | (120,850) |
| | | | | More : current portion-discount on debentures | | | 5 |
| | | | | | | ₩ | 361,603 |

(ii) As of December 31, 2015

| *In millions of won, In thousands of usd* | Issue date | Maturity date | Annual interest rate | | USD | | Won Equivalents |
|---|---|---|---|---|---|---|---|
| Euro bond #13 | 2013.02.05 | 2018.02.05 | Fixed rate | 1.88% | $ 300,000 | ₩ | 351,600 |
| Corporate bond #25 | 2014.01.28 | 2017.01.28 | Floating rate | 3M Libor + 1.05% | 100,000 | | 117,200 |
| | | | | | $ 400,000 | | 468,800 |
| | | | | Less: discount on debentures | | | (1,800) |
| | | | | | | ₩ | 467,000 |

## 23. Retirement Benefit Obligations

(1) The Group operates a defined contribution retirement pension and defined benefit retirement pension for employees. For the years ended December 31, 2016 and 2015, the Company recognized cost of sales of ₩4,286 million and ₩3,683 million, respectively; selling and administrative expenses of ₩538 million and ₩428 million, respectively; and others of ₩754 million and ₩703 million, respectively. There is no contribution of non-payment which should be recognized as a liability.

(2) The principal assumptions used on actuarial valuation as of December 31, 2016 and 2015 are as follows:

| | **December 31, 2016** | **December 31, 2015** |
|---|---|---|
| Discount rate | 2.36%~2.62% | 2.57% |
| Future salary and benefit levels | 3.00%~8.84% | 4.18~8.84% |

## 23. Retirement Benefit Obligations, Continued

(3) Details of the Group's expense relating to its defined benefit plans for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Current service cost | ₩ | 14,364 | 12,464 |
| Interest cost | | 2,321 | 2,049 |
| Expected return on plan assets | | (485) | (429) |
| | ₩ | 16,200 | 14,084 |

The Group recognized these expenses as payments to employee benefits. For the years ended December 31, 2016 and 2015, the Group recognized cost of sales of ₩12,797 million and ₩11,062 million, respectively; selling and administrative expenses of ₩965 million and ₩711 million, respectively; and others of ₩2,438 million and ₩2,311 million, respectively.

(4) Retirement benefit obligation as of December 31, 2016 and 2015 is as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Present value of defined benefit obligation from funded plans | ₩ | 103,607 | 76,542 |
| Fair value of plan assets | | (20,310) | (18,536) |
| Net retirement obligations from defined benefit plans | ₩ | 83,297 | 58,006 |

In addition to net liabilities arising from the defined benefit obligation, long-term employee benefit liabilities of ₩338 million and ₩301 million are included in employee benefit obligations as of December 31, 2016 and 2015, respectively.

(5) Changes in retirement benefit obligation for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Beginning balance | ₩ | 76,542 | 62,870 |
| Current service cost | | 14,364 | 12,464 |
| Interest cost | | 2,321 | 2,049 |
| Remeasurement component | | 11,913 | 592 |
| Actual payments | | (1,533) | (1,433) |
| Ending balance | ₩ | 103,607 | 76,542 |

## 23. Retirement Benefit Obligations, Continued

(6) Changes in the fair value of the plan assets for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Beginning balance | ₩ | 18,536 | 13,044 |
| Expected return | | 485 | 429 |
| Remeasurement component | | (154) | (131) |
| Contributions by the employers | | 1,443 | 5,194 |
| Ending balance | ₩ | 20,310 | 18,536 |

Accumulated actuarial losses on plan assets recorded as other comprehensive income amounted to ₩37,062 million and ₩27,916 million, respectively, as of December 31, 2016 and December 31, 2015.

(7) The amount of major categories of the fair value of plan assets as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Equity instrument | ₩ | 824 | 181 |
| Debt instrument | | 3,065 | 2,413 |
| Deposits | | 6,117 | 4,808 |
| Others | | 10,304 | 11,134 |
| | ₩ | 20,310 | 18,536 |

Actual return on plan assets for the years ended December 31, 2016 and 2015 are ₩331 million and ₩298 million, respectively.

(8) Remeasurement component recognized in other comprehensive income for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Actuarial gain (loss) from changes in financial | | 745 | (6,516) |
| Experience adjustments | | (12,658) | 5,924 |
| Expected return | | (154) | (131) |
| | ₩ | (12,067) | (723) |

## 24. Provisions

(1) Provisions as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | | December 31, 2015 | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Provision for employment benefits | ₩ | 27,644 | - | 30,250 | - |
| Other provisions | | | | | |
| Renewable portfolio standard provisions(*1) | | 25,828 | - | 23,407 | - |
| Provision for litigations(*2) | | 7,373 | - | 14,908 | - |
| Financial guarantee provisions | | 455 | - | 1,730 | 426 |
| | ₩ | 61,300 | - | 70,295 | 426 |

(*1) The provision related to the estimated penalty the Group will be assessed by the government for failure to comply with governmental regulations that require the production of a certain amount of power from renewable energy sources such as solar, wind and biomass.
(*2) The Group recognized a provision for the litigation of ordinary wage as an outflow of resources embodying economic benefits is probable and reliably estimable.

(2) Changes in provisions for the years ended December 31, 2016 and 2015 are as follows:

(i) For the year ended December 31, 2016

| *In millions of won* | | Beginning balance | Accrual (Reversal) of provision | Use | Ending balance |
|---|---|---|---|---|---|
| Provision for employment benefits | ₩ | 30,250 | 31,294 | (33,900) | 27,644 |
| Other provisions | | | | | |
| Renewable portfolio standard provisions | | 23,407 | 2,421 | - | 25,828 |
| Provision for litigation | | 14,908 | (220) | (7,315) | 7,373 |
| Provision for financial guarantee | | 2,156 | (1,701) | - | 455 |
| | ₩ | 70,721 | 31,794 | (41,215) | 61,300 |

(ii) For the year ended December 31, 2015

| *In millions of won* | | Beginning balance | Accrual of provision | Use | Ending balance |
|---|---|---|---|---|---|
| Provision for employment benefits | ₩ | 31,622 | 34,699 | (36,071) | 30,250 |
| Other provisions | | | | | |
| Renewable portfolio standard provisions | | 46,497 | (23,090) | - | 23,407 |
| Provision for litigation | | 13,439 | 14,996 | (13,527) | 14,908 |
| Provision for financial guarantee | | - | 2,156 | - | 2,156 |
| | ₩ | 91,558 | 28,761 | (49,598) | 70,721 |

(3) The Group has not recognized a provision for greenhouse gas emissions because greenhouse gas emissions that were generated for the year ended December 31, 2016 did not exceed the allocated emissions received free from the government.

## 25. Government Grants

(1) Accounting policies of Government Grants

Government grants whose primary condition is that the Group purchase, construct or otherwise acquire long-term assets are deducted in calculating the carrying amount of the asset.

(2) Changes in government grants for the years ended December 31, 2016 and 2015 are as follows:

(i) For the year ended December 31, 2016

*In millions of won*

| | | Beginning balance | Depreciation offset | Ending balance |
|---|---|---|---|---|
| Buildings | ₩ | 104 | (4) | 100 |
| Machinery | | 321 | (37) | 284 |
| Equipment | | 149 | (136) | 13 |
| | ₩ | 574 | (177) | 397 |

(ii) For the year ended December 31, 2015

*In millions of won*

| | | Beginning balance | Depreciation offset | Ending balance |
|---|---|---|---|---|
| Buildings | ₩ | 108 | (4) | 104 |
| Machinery | | 363 | (42) | 321 |
| Equipment | | 390 | (241) | 149 |
| | ₩ | 861 | (287) | 574 |

## 26. Non-financial Liabilities

Other non-financial liabilities as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | | December 31, 2015 | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Advances received | ₩ | 9,772 | - | 747 | - |
| Unearned revenues | | 1,081 | - | 247 | - |
| Withholdings | | 9,515 | - | 7,214 | - |
| Others | | 4,109 | - | 10,272 | - |
| | ₩ | 24,477 | - | 18,480 | - |

## 27. Share Capital

(1) Shares capital as of December 31, 2016 and 2015 is as follows:

| *In millions of won , except par value* | | | | December 31, 2016 | | December 31, 2015 | |
|---|---|---|---|---|---|---|---|
| Type | Number of shares authorized | Number of shares issued | Par value | Govt. | Non-govt. | Govt. | Non-govt. |
| Common Stock | 100,000,000shares | 47,739,895 shares | 5,000 | - | 238,699 | - | 228,828 |

(2) Changes in number of shares issued for the year end December 31, 2016 and 2015 are as follows:

| *In millions of won* | December 31, 2016 | December 31, 2015 |
|---|---|---|
| Beginning | 45,765,507 | 45,765,507 |
| Investment in kind(*) | 1,974,388 | - |
| Ending | 47,739,895 | 45,765,507 |

(*) KEPCO made an investment in kind by contributing the shares of the PT. Bayan Resources TBK (available-for-sale securities).

(3) Share premium as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Paid-in capital in excess of par value | ₩ | 1,615,309 | 1,544,695 |

## 28. Retained Earnings and Dividends

(1) Retained earnings as of December 31, 2016 and 2015 are summarized as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Legal reserves(*) | ₩ | 60,082 | 58,298 |
| Voluntary reserves | | 1,112,619 | 907,495 |
| Retained earnings before appropriations | | 1,141,120 | 953,046 |
| | ₩ | 2,313,821 | 1,918,839 |

(*) The Commercial Code of the Republic of Korea requires the Company to appropriate as a legal reserve, an amount equal to a minimum of 10% of annual cash dividends paid, until the reserve equals 50% of its issued capital stock. The reserve is not available for the payment of cash dividends, but may be transferred to capital stock through a resolution of the Board of Directors or used to reduce accumulated deficit, if any, with the ratification of the shareholders.

## 28. Retained Earnings and Dividends, Continued

(2) Composition of voluntary reserves as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Reserve for business stabilization(*1) | ₩ | 38 | 38 |
| Reserve for research and human development(*2) | | 47,000 | 47,000 |
| Reserve for investment on social overhead capital | | 84,498 | 84,498 |
| Reserve for business expansion | | 981,083 | 775,959 |
| | ₩ | 1,112,619 | 907,495 |

(*1) Prior to 2002, the Company appropriated certain tax-deductible benefits as reserve for business stabilization, for offsetting future deficit in accordance with the relevant tax laws. Due to the amendment of such tax laws on December11, 2002, the reserve is no longer required. However, the Company continues to maintain such reserve on a voluntary basis.

(*2) The reserve for research and human development is appropriated by the Company to use as qualified tax credits to reduce corporate tax liabilities. The reserve is available for cash dividends for a certain period as defined by the Tax Incentive Control Law of Korea.

(3) Changes in retained earnings before appropriations for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Beginning balance | ₩ | 1,918,839 | 1,708,255 |
| Profit for the period-Controlling company | | 421,976 | 221,450 |
| Dividends paid | | (17,849) | (10,272) |
| Actuarial losses | | (9,146) | (548) |
| Changes in retained earnings of equity method investments | | 1 | (46) |
| Ending balance | ₩ | 2,313,821 | 1,918,839 |

(4) Dividends paid for the years ended December 31, 2016 and 2015 are as follows:

(i) For the year ended December 31, 2016

| Type | Number of shares issued (shares) | Number of treasury shares (shares) | Number of share eligible for dividends (shares) | Dividends per share (in won) | Total dividends (in millions of won) |
|---|---|---|---|---|---|
| Common stock | 47,739,895 | - | 45,765,507 | 390 | 17,849 |

(ii) For the year ended December 31, 2015

| Type | Number of shares issued (shares) | Number of treasury shares (shares) | Number of share eligible for dividends (shares) | Dividends per share (in won) | Total dividends (in millions of won) |
|---|---|---|---|---|---|
| Common stock | 45,765,507 | - | 45,765,507 | 224 | 10,272 |

## 28. Retained Earnings and Dividends, Continued

(5) Changes in actuarial losses on retirement benefit obligations for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Beginning balance | ₩ | 27,916 | 27,368 |
| Changes for the period | | 12,067 | 723 |
| Income tax effect | | (2,921) | (175) |
| Ending balance | ₩ | 37,062 | 27,916 |

## 29. Statement of Appropriation of Retained Earnings

For the year ended December 31, 2016, the Company's retained earnings are expected to be appropriated on March 30, 2017. For the year ended December 31, 2015, the Company's retained earnings were appropriated on March 29, 2016.

Statements of appropriation of retained earnings of KOSPO, the controlling company based on separate financial statements, for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Ⅰ. Retained earnings before appropriations | | | |
| Unappropriated retained earnings carried over from prior years | ₩ | 727,392 | 727,940 |
| Remeasurements of the defined benefit plan | | (9,146) | (548) |
| Net income | | 426,337 | 224,757 |
| | | 1,144,583 | 952,149 |
| Ⅱ. Appropriations of retained earnings | | | |
| Dividends | | 60,630 | 17,849 |
| Legal reserves | | 6,063 | 1,785 |
| Voluntary reserves | | 359,644 | 205,123 |
| | | 426,337 | 224,757 |
| Ⅲ. Unappropriated retained earnings to be carried over to subsequent year (Ⅰ - Ⅱ) | ₩ | 718,246 | 727,392 |

## 30. Components of Equity

(1) Other components of equity as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Accumulated other comprehensive income | ₩ | (7,316) | (6,139) |
| Other equity | | (878) | (686) |
| | ₩ | (8,194) | (6,825) |

(2) Changes in accumulated other comprehensive income for the years ended December 31, 2016 and 2015 are as follows:

(i) For the year ended December 31, 2016

| *In millions of won* | | Available-for-sale financial assets valuation reserve | Reserve for gain (loss) on valuation of derivatives | Share in other comprehensive income (loss) of associates | Reserve for gain (loss) on overseas operations translation credit |
|---|---|---|---|---|---|
| Beginning balance | ₩ | 2,789 | (3,347) | (3,338) | (2,243) |
| Available-for-sale financial assets | | (5,049) | - | - | - |
| Valuation of derivatives | | - | 2,444 | - | - |
| Investments in associates | | - | - | 83 | - |
| Overseas operations translation | | - | - | - | 714 |
| Tax effect | | 1,222 | (591) | - | - |
| Ending balance | ₩ | (1,038) | (1,494) | (3,255) | (1,529) |

(ii) For the year ended December 31, 2015

| *In millions of won* | | Available-for-sale financial assets valuation reserve | Reserve for gain (loss) on valuation of derivatives | Share in other comprehensive loss of associates | Reserve for loss on overseas operations translation credit |
|---|---|---|---|---|---|
| Beginning balance | ₩ | 2,286 | (5,698) | (678) | (2,227) |
| Available-for-sale financial assets | | 664 | - | - | - |
| Valuation of derivatives | | - | 3,101 | - | - |
| Investments in associates | | - | - | (2,660) | - |
| Overseas operations translation | | - | - | - | (16) |
| Tax effect | | (161) | (750) | - | - |
| Ending balance | ₩ | 2,789 | (3,347) | (3,338) | (2,243) |

## 31. Sales

Details of sales for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | December 31, 2016 | | December 31, 2015 | |
|---|---|---|---|---|
| | Domestic | Overseas | Domestic | Overseas |
| Income from sales of electric power | ₩ 4,195,261 | - | 4,303,644 | - |
| Income from services | - | 3,574 | - | 14,352 |
| Other sales | - | 19,978 | - | 14,696 |
| | ₩ 4,195,261 | 23,552 | 4,303,644 | 29,048 |

## 32. Selling and Administrative Expenses

Composition of selling and administrative expenses for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | December 31, 2016 | December 31, 2015 |
|---|---|---|
| Salaries | ₩ 19,059 | 11,847 |
| Retirement benefit expense | 1,503 | 1,139 |
| Welfare and benefit expense | 2,677 | 1,610 |
| Insurance expenses | 190 | 39 |
| Depreciation | 12,667 | 11,456 |
| Amortization | 4,841 | 6,752 |
| Commission | 14,787 | 13,630 |
| Advertisement | 871 | 817 |
| Training | 241 | 237 |
| Vehicles | 79 | 77 |
| Publication expenses | 113 | 121 |
| Business expenses | 177 | 129 |
| Rent | 476 | 586 |
| Communication | 1,439 | 1,019 |
| Transportation expense | 9 | - |
| Taxes and dues | 422 | 329 |
| Supplies expenses | 144 | 43 |
| Repairs | 16,738 | 13,943 |
| Ordinary development expenses | 9,120 | 6,771 |
| Travel expenses | 570 | 522 |
| Clothing expenses | 318 | 16 |
| Research and analysis expenses | 5 | 7 |
| Membership fee | 110 | 112 |
| Others | 12,510 | 5,915 |
| | ₩ 99,066 | 77,117 |

## 33. Other non-operating Income and Expense

(1) Other non-operating income for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Gain on assets contributed | ₩ | - | 4,485 |
| Compensation and reparations revenue | | 352 | 1,023 |
| Rental income | | 3,907 | 3,179 |
| Gains on guarantee contracts | | 1,702 | 4,523 |
| Reversal for other provisions | | 3,407 | - |
| | ₩ | 9,368 | 13,210 |

(2) Other non-operating expenses for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Compensation and indemnification expense | ₩ | - | 16,958 |
| Accretion expenses of other provisions | | - | 4,255 |
| Donations | | 1,834 | 1,140 |
| | ₩ | 1,834 | 22,353 |

## 34. Other Profit and Loss

Composition of other profit and loss for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Gain on disposal of property, plant and equipment | ₩ | - | 9,718 |
| Gain on foreign currency translation(*) | | 850 | 2,968 |
| Gain on foreign currency transactions(*) | | 4,873 | 3,971 |
| Gain on disposal of inventories | | 164 | 620 |
| Other income | | 11,916 | 11,354 |
| Loss on disposal of property, plant and equipment | | (18,091) | (42,515) |
| Loss on disposal of inventories | | (146) | (10,409) |
| Loss on foreign currency translation(*) | | (2,821) | (3,872) |
| Loss on foreign currency transactions(*) | | (7,066) | (6,099) |
| Other loss | | (7,573) | (2,771) |
| | ₩ | (17,894) | (37,035) |

(*) Incurred from the Group's operating activities

## 35. Finance Income

(1) Finance income for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Interest income | ₩ | 5,862 | 4,250 |
| Gain on valuation of derivatives | | 17,728 | 29,152 |
| Gain on transactions of derivatives | | 7,693 | 6,043 |
| Gain on foreign currency translation(*) | | 400 | 104 |
| Gain on foreign currency transactions(*) | | - | 33 |
| | ₩ | 31,683 | 39,582 |

(*) Incurred from Group's financing activities

(2) Interest income included in finance income for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Cash and cash equivalents | ₩ | 2,931 | 2,569 |
| Available-for-sale financial assets | | 322 | - |
| Loans | | 1,945 | 625 |
| Trade and other receivables | | 664 | 1,056 |
| | ₩ | 5,862 | 4,250 |

## 36. Finance Expenses

(1) Finance expenses for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Interest expense | ₩ | 64,161 | 52,991 |
| Loss on disposal of available-for-sale financial assets | | - | 60 |
| Impairment loss on available-for-sale financial assets | | 1,963 | 12,989 |
| Loss on valuation of derivatives | | - | 166 |
| Loss on transaction of derivatives | | 4,898 | 3,449 |
| Loss on foreign currency translation(*) | | 14,640 | 29,213 |
| Loss on foreign exchange transactions(*) | | - | 1 |
| | ₩ | 85,662 | 98,869 |

(*) Incurred from financing activities

## 36. Finance Expenses, Continued

(2) Interest expenses included in finance expenses for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Short-term borrowings | ₩ | - | 236 |
| Long-term borrowings | | 4,955 | 36 |
| Debentures | | 139,994 | 139,015 |
| Other financial liabilities | | 3,395 | 3,999 |
| | | 148,344 | 143,286 |
| Less : capitalized borrowing costs | | (84,183) | (90,295) |
| | ₩ | 64,161 | 52,991 |

Capitalization rates for the years ended December 31, 2016 and 2015 are 3.02% and 2.98%, respectively.

## 37. Income Tax Expenses

(1) Components of incomes tax expense for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Current income tax expenses | ₩ | 119,573 | 18,811 |
| Current income tax | | 111,677 | 24,711 |
| Adjustment for prior years | | 4,344 | (5,164) |
| Income tax credited (charged) directly in equity | | 3,552 | (736) |
| Deferred income tax expense | | (14,350) | 24,722 |
| Generation and realization of temporary differences | | (14,350) | 21,925 |
| Tax credit carry forwards | | - | 2,797 |
| Income tax expense | ₩ | 105,223 | 43,533 |

## 37. Income Tax Expenses, Continued

(2) Reconciliation between income tax expense and accounting income for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Profit before income tax expense | ₩ | 527,771 | 264,985 |
| Income tax expense in accordance with applicable statutory tax rate (tax rate: 24.2%) | | 127,721 | 64,126 |
| Adjustments | | | |
| Effect of applying gradual tax rate | | (462) | (462) |
| Effect of non-taxable income | | (8,835) | (1,444) |
| Effect of non-deductible expenses | | 4,182 | 10,878 |
| Effect of tax credit and tax reduction | | (10,921) | (13,247) |
| Additional payment of income taxes or receipt of income tax refunds | | (10,490) | (13,582) |
| Others | | (316) | 2,428 |
| | | (26,842) | (15,429) |
| Change to estimates for the prior periods | | 4,344 | (5,164) |
| Income tax expense | ₩ | 105,223 | 43,533 |
| Effective tax rate | | 19.9% | 16.4% |

(3) There is no deferred income tax directly adjusted to shareholders' equity (except for accumulated other comprehensive income) for the years ended December 31, 2016 and 2015.

(4) Income tax recognized as accumulated other comprehensive income for the years ended December 31, 2016 and 2015 is as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Income tax recognized as accumulated other comprehensive income | | | |
| Gain (loss) on valuation of available-for-sale financial assets | ₩ | 1,222 | (161) |
| Net change in the unrealized fair value of derivatives using cash flow hedge accounting, | | (591) | (750) |
| Actuarial gains and losses | | 2,921 | 175 |
| | ₩ | 3,552 | (736) |

## 37. Income Tax Expenses, Continued

(5) Deferred income tax assets (liabilities) recognized in the consolidated statements of financial position for the years ended December 31, 2016 and 2015 are as follows:

(i) As of December 31, 2016

| *In millions of won* | | Beginning balance | Amounts recognized in profit or loss | Amounts recognized in other comprehensive income | Ending balance |
|---|---|---|---|---|---|
| Deferred income tax on temporary differences | | | | | |
| Employee benefits | ₩ | 22,871 | 3,053 | 2,921 | 28,845 |
| Cash flow hedge | | (7,084) | (3,534) | (591) | (11,209) |
| Investments in associates and subsidiaries | | (4,185) | 386 | - | (3,799) |
| Property, plant and equipment | | (310,260) | 1,260 | - | (309,000) |
| Intangible assets | | 23 | - | - | 23 |
| Available-for-sale financial assets | | 3,596 | 475 | 1,222 | 5,293 |
| Provisions | | 9,794 | (1,759) | - | 8,035 |
| Gains (losses) on foreign exchange translation | | 8,242 | 3,775 | - | 12,017 |
| Accrued income | | (6) | (142) | - | (148) |
| Special deduction | | (6,258) | 99 | - | (6,159) |
| Derivative assets | | - | (413) | - | (413) |
| Taxes and dues | | - | 2,609 | - | 2,609 |
| Others | | 9,458 | 4,989 | - | 14,447 |
| | ₩ | (273,809) | 10,798 | 3,552 | (259,459) |

## 37. Income Tax Expenses, Continued

(5) Deferred income tax assets (liabilities) recognized in the consolidated statements of financial position for the years ended December 31, 2016 and 2015 are as follows, continued:

(ii) As of December 31, 2015

| *In millions of won* | | Beginning balance | Amounts recognized in profit or loss | Amounts recognized in other comprehensive income | Ending balance |
|---|---|---|---|---|---|
| Deferred income tax on temporary differences | | | | | |
| Employee benefits | ₩ | 21,149 | 1,547 | 175 | 22,871 |
| Cash flow hedge | | 713 | (7,047) | (750) | (7,084) |
| Investments in associates and subsidiaries | | (3,113) | (1,072) | - | (4,185) |
| Property, plant and equipment | | (281,759) | (28,501) | - | (310,260) |
| Intangible assets | | 23 | - | - | 23 |
| Available-for-sale financial assets | | (729) | 4,486 | (161) | 3,596 |
| Provisions | | 14,505 | (4,711) | - | 9,794 |
| Gains (losses) on foreign exchange translation | | 1,220 | 7,022 | - | 8,242 |
| Allowance for doubtful accounts | | (1,227) | 1,227 | - | - |
| Accrued income | | - | (6) | - | (6) |
| Special deduction | | (6,258) | - | - | (6,258) |
| Reserve for research and human development | | (1,601) | 1,601 | - | - |
| Others | | 5,193 | 4,265 | - | 9,458 |
| | | (251,884) | (21,189) | (736) | (273,809) |
| Deferred income tax on unused tax losses and tax credit | | | | | |
| Tax credit | | 2,797 | (2,797) | - | - |
| | ₩ | (249,087) | (23,986) | (736) | (273,809) |

(6) Deferred income tax liabilities recognized in the consolidated statements of financial position as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | **December 31, 2016** | **December 31, 2015** |
|---|---|---|---|
| Deferred income tax liabilities | ₩ | 259,459 | 273,809 |

## 38. Expenses Classified by Nature

Expenses classified by nature for the years ended December 31, 2016 and 2015 are as follows:

(i) For the year ended December 31, 2016

| *In millions of won* | | Selling and administrative expenses | Cost of sales | Total |
|---|---|---|---|---|
| Changes in inventories(*) | ₩ | - | 2,628,560 | 2,628,560 |
| Salaries | | 19,059 | 137,351 | 156,410 |
| Retirement benefit expense | | 1,503 | 17,083 | 18,586 |
| Welfare and benefit expense | | 2,677 | 11,698 | 14,375 |
| Insurance expenses | | 190 | 9,678 | 9,868 |
| Deprecation | | 12,667 | 489,180 | 501,847 |
| Amortization | | 4,841 | 2,694 | 7,535 |
| Commission | | 14,787 | 10,406 | 25,193 |
| Advertisement | | 871 | 426 | 1,297 |
| Training | | 241 | 50 | 291 |
| Vehicles | | 79 | 70 | 149 |
| Publication expenses | | 113 | 98 | 211 |
| Business expenses | | 177 | 216 | 393 |
| Rent | | 476 | 13,546 | 14,022 |
| Communication | | 1,439 | 158 | 1,597 |
| Transportation expenses | | 9 | 46 | 55 |
| Taxes and dues | | 422 | 33,499 | 33,921 |
| Supplies expenses | | 144 | 796 | 940 |
| Utilities expenses | | - | 729 | 729 |
| Repairs | | 16,738 | 134,766 | 151,504 |
| Ordinary development expenses | | 9,120 | 13,223 | 22,343 |
| RPS provision | | - | 2,391 | 2,391 |
| Greenhouse gas emissions rights | | - | (1,668) | (1,668) |
| Travel expenses | | 570 | 625 | 1,195 |
| Clothing expenses | | 318 | 6 | 324 |
| Research and analysis expenses | | 5 | 107 | 112 |
| Membership fee | | 110 | 273 | 383 |
| Others | | 12,510 | 10,368 | 22,878 |
| | ₩ | 99,066 | 3,516,375 | 3,615,441 |

(*) This includes incurred fuel costs and other operational costs.

## 38. Expenses Classified by Nature, Continued

Expenses classified by nature for the years ended December 31, 2016 and 2015 are as follows, continued:

(ii) For the year ended December 31, 2015

| *In millions of won* | | Selling and administrative expenses | Cost of sales | Total |
|---|---|---|---|---|
| Changes in inventories(*) | ₩ | - | 3,019,240 | 3,019,240 |
| Salaries | | 11,847 | 118,096 | 129,943 |
| Retirement benefit expense | | 1,139 | 14,744 | 15,883 |
| Welfare and benefit expense | | 1,610 | 12,482 | 14,092 |
| Insurance expenses | | 39 | 10,265 | 10,304 |
| Deprecation | | 11,456 | 506,250 | 517,706 |
| Amortization | | 6,752 | 2,639 | 9,391 |
| Commission | | 13,630 | 8,768 | 22,398 |
| Advertisement | | 817 | 208 | 1,025 |
| Training | | 237 | 54 | 291 |
| Vehicles | | 77 | 84 | 161 |
| Publication expenses | | 121 | 69 | 190 |
| Business expenses | | 129 | 175 | 304 |
| Rent | | 586 | 11,824 | 12,410 |
| Communication | | 1,019 | 136 | 1,155 |
| Transportation expenses | | - | 15 | 15 |
| Taxes and dues | | 329 | 21,985 | 22,314 |
| Supplies expenses | | 43 | 908 | 951 |
| Utilities expenses | | - | 643 | 643 |
| Repairs | | 13,943 | 123,850 | 137,793 |
| Ordinary development expenses | | 6,771 | 15,718 | 22,489 |
| RPS provision | | - | (23,090) | (23,090) |
| Travel expenses | | 522 | 490 | 1,012 |
| Clothing expenses | | 16 | - | 16 |
| Research and analysis expenses | | 7 | 135 | 142 |
| Membership fee | | 112 | 236 | 348 |
| Others | | 5,915 | 39,291 | 45,206 |
| | ₩ | 77,117 | 3,885,215 | 3,962,332 |

(*) This includes incurred fuel costs and other operational costs.

## 39. Earnings per share

(1) Basic earnings per share for the years ended December 31, 2016 and 2015 are as follows:

| *In won* | | **December 31, 2016** | **December 31, 2015** |
|---|---|---|---|
| Basic earnings per share | ₩ | 9,216 | 4,839 |

## 39. Earnings per share, Continued

(2) Profit for the period and weighted average number of common shares outstanding for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won, except for shares* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Profit used in the calculation of basic earnings per share | ₩ | 421,976 | 221,450 |
| Weighted average number of common shares | | 45,787,144 shares | 45,765,507 shares |

## 40. Risk Management

(1) Capital risk management

The Group manages its capital to ensure that it will be able to continue business while maximizing the return to shareholder's through the optimization of debt and equity balance business. The capital structure of the Group consists of net debt (offset by cash and bank balances) and equity. The Group's overall capital risk management strategy remains consistent with the prior year.

Details of the Group's capital management accounts as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Total borrowings and debentures | ₩ | 4,778,251 | 4,733,822 |
| Cash and cash equivalents(*) | | 320,431 | 202,151 |
| Net borrowings and debentures | | 4,457,820 | 4,531,671 |
| Total shareholder's equity | | 4,206,171 | 3,710,537 |
| Debt to equity ratio | | 105.98% | 122.13% |

(*) Short-term financial instruments are included.

(2) Financial risk management

The Group is exposed to various risks related to its financial instruments, such as market risk (currency risk, interest rate risk, price risk) and credit risk. The Group monitors and manages the financial risks relating to the operations of the Group through internal risk reports which analyse exposures by degree and magnitude of risks.

The Group uses derivative financial instruments to hedge certain risk exposures. The Group's overall financial risk management strategy remains consistent with the prior year.

1) Credit risk

Credit risk is the risk of finance loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises primarily from the Group's debt securities and derivative instruments. In addition, credit risk exposure may exist within financial guarantees and unused lines of credit. The financial institutions the Group enters into transactions with are reputable financial institutions, therefore the credit risk to the Group is considered limited. The Group sets credit transaction limits based on evaluations of client's credit, through information obtained from the credit bureau and disclosed financial position at committing contracts.

## 40. Risk Management, Continued

(2) Financial risk management, continued:

1) Credit risk, continued

a) Credit risk management

The Group uses publicly available information and its own internal data related to accounts receivable to rate its major customers and to measure the credit risk that a counter party will default on a contractual obligation. As the majority of the Group's accounts receivables are due from governmental entities, the Group does not have significant credit risk exposure. Regarding its debt securities, the Group continuously reviews credit ratings issued by credit agencies, and the Group's working capital (i.e. cash) is deposited at financial institutions with high credit ratings.

b) Impairment and allowance accounts

In accordance with the Group policies, individual material financial assets are assessed on a regular basis, trade receivables that are assessed not to be impaired individually are, in addition, assessed for impairment on a collective basis. The estimated value of any acquired collateral and estimated collectable amounts are included in this assessment.

The allowance for bad debts assessed on a collective basis is recognized for (i) the group of assets which individually are not material and (ii) incurred but not recognized losses that are assessed using statistical methods, judgment and historical experience.

Book values of the financial assets represent the maximum exposed amounts of the credit risk. Details of the Group's level of maximum exposure to credit risk as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Cash and cash equivalents | ₩ | 320,431 | 182,151 |
| Short-term financial instruments | | - | 20,000 |
| Available-for-sale financial assets | | 96,276 | 16,620 |
| Trade and other receivables | | 569,428 | 453,636 |
| Loans | | 15,000 | 13,199 |
| Derivative assets | | 49,448 | 29,307 |
| Financial guarantee contracts(*) | | 160,247 | 155,407 |
| | ₩ | 1,210,830 | 870,320 |

(*) Maximum exposure associated with the financial guarantee contracts is the maximum amounts of the obligation.

Details of financial guarantee contracts as of December 31, 2016 are as follows:

*In thousands of usd*

| | Company | Currency | Amounts |
|---|---|---|---|
| Joint venture | Kelar S.A. | USD | 132,600 |

For the year ended December 31, 2016, the Group has no financial assets and non-financial assets acquired by the execution of the lien or held for credit enhancement needs.

## 40. Risk Management, Continued

(2) Financial risk management, continued:

2) Market risk

Market risk is the risk that the Group's fair values of the financial instruments or future cash flows are affected by the changes in the market. Market risk consists of interest rate risk, currency risk and other price risk.

3) Sensitivity analysis

a) Major assets and liabilities with uncertanties in underlying assumptions

① Defined benefit obligation

A sensitivity analysis on the Group's defined benefit obligation assuming a 1% increase and decrease in various assumptions as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | **December 31, 2016** | | **December 31, 2015** | |
|---|---|---|---|---|---|
| Assumptions | Accounts | 1% Increase | 1% Decrease | 1% Increase | 1% Decrease |
| Future salary increases | Defined benefit obligation ₩ | 15,267 | (13,112) | 11,517 | (9,760) |
| Discount rate | Defined benefit obligation | (13,536) | 16,372 | (10,183) | 12,353 |

Changes of employee benefits assuming 1% increase and decrease movements in discount rate on plan for the years ended December 31, 2016 and 2015 are ₩187 million and ₩132 million, respectively.

② Provisons

Changes in provisions due to movements in underlying assumptions as of December 31, 2016 and 2015 are as follows:

| Assumptions | Accounts | **December 31, 2016** | **December 31, 2015** |
|---|---|---|---|
| Expected payments rate | Provision for employment benefits | 307.64% | 362.89% |

A sensitivity analysis on the Group's provision for employment benefit assuming a 1% increase and decrease in various assumptions as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | **December 31, 2016** | | **December 31, 2015** | |
|---|---|---|---|---|---|
| Assumptions | Accounts | 1% Increase | 1% Decrease | 1% Increase | 1% Decrease |
| Expected payments rate | Provision for employment benefits ₩ | 162 | (162) | 83 | (83) |

## 40. Risk Management, continued

(2) Financial risk management, continued:

3) Sensitivity analysis, continued

b) Management judgment effected by uncertainties in underlying assumptions

① Foreign currency risk

The Group undertakes transactions denominated in foreign currencies: consequently, exposures to currency exchange rate fluctuations arise. The carrying amount of the Group's foreign currency denominated monetary assets and monetary liabilities at the end of the reporting period are as follows:

| *In thousands of foreign currency* | Assets | | Liabilities | |
|---|---|---|---|---|
| | **December 31, 2016** | **December 31, 2015** | **December 31, 2016** | **December 31, 2015** |
| USD | 33,269 | 19,596 | 497,614 | 473,951 |
| EUR | 191 | - | 13,197 | 12,738 |
| CNY | - | - | - | 26,140 |
| CHF | - | - | 8 | 29 |

A sensitivity analysis on the Group's income for the period assuming a 10% increase and decrease in currency exchange rates for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | **December 31, 2016** | | **December 31, 2015** | |
|---|---|---|---|---|---|
| | | 10% Increase | 10% Decrease | 10% Increase | 10% Decrease |
| Increase (decrease) of income before income tax | ₩ | (57,766) | 57,766 | (55,357) | 55,357 |
| Increase (decrease) of sharholder's equity(*) | | (57,766) | 57,766 | (55,357) | 55,357 |

(*) The tax effect is not considered.

Sensitivity analysis above is conducted for monetary assets and liabilities denominated in foreign currencies other than functional currency as of December 31, 2016 and 2015.

To manage its foreign currency risk related to foreign currency denominated receivables and payables, the Group has a policy to enter into currency swap agreements. In addition, to manage its foreign currency risk related to foreign currency denominated expected sales transactions and purchase transactions, the Group enters into cross-currency forward agreements.

**40. Risk Management, continued**

(2) Financial risk management, continued:

3) Sensitivity analysis, continued

b) Management judgment effected by uncertainties in underlying assumptions, continued

② Interest rate risk

The Group is exposed to interest rate risk due to its borrowing with floating interest rates. A 1% increase or decrease is used when reporting interest rate risk internally to key management personnel which represents management's assessment of the reasonably possible change in interest rates.

The Group's long-term borrowings and debentures with floating interest rates as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Current portion of long-term borrowings | ₩ | 366 | 566 |
| Long-term borrowings | | 56,985 | 2,801 |
| Current portion of debentures | | 120,850 | - |
| Debentures | | - | 117,200 |
| | ₩ | 178,201 | 120,567 |

A sensitivity analysis on the Group's long-term borrowings and debentures assuming a 1% increase and decrease in interest rates for the years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | | December 31, 2015 | |
|---|---|---|---|---|---|
| | | 1% Increase | 1% Decrease | 1% Increase | 1% Decrease |
| Increase (decrease) of income before income tax | ₩ | (1,782) | 1,782 | (1,206) | 1,206 |
| Increase (decrease) of sharholder's equity(*) | | (1,782) | 1,782 | (1,206) | 1,206 |

(*) The tax effect is not considered.

The Group enters into certain interest rate swap agreements to manage its interest rate risks in addition to maintaining an appropriate mix of fixed and floating rate borrowings.

## 40. Risk Management, continued

(2) Financial risk management, continued:

4) Liquidity risk

The Group has established an appropriate liquidity risk management framework for the management of the Group's short, medium and long-term funding and liquidity requirements. The Group manages liquidity risk by maintaining adequate reserves, banking facilities and reserve borrowing facilities, by continuously monitoring forecast and actual cash flows, and by matching the maturity profiles of financial assets and liabilities.

In addition, the Group has established credit lines on its trade financing and bank overdrafts, and through payment guarantees it has received, it maintains an adequate credit (borrowing) line. In addition, in case of major construction investment, the Group has the ability to use reserve cash or utilize long-term borrowings.

Details of remaining maturities of the Group's non-derivative financial liabilities based on agreement terms are as follows. The amount disclosed below represents the undiscounted cash flows that the Group is obligated to pay in the future based on the earliest repayment date:

(i) As of December 31, 2016

| *In millions of won* | | Less than 1 year | 1-2 years | 2-5 years | More than 5 years | Total |
|---|---|---|---|---|---|---|
| Borrowings and debentures | ₩ | 901,823 | 843,024 | 1,730,011 | 2,094,431 | 5,569,289 |
| Trade and other payables | | 529,393 | 19,366 | 287 | - | 549,046 |
| Financial guarantee liabilities | | 160,247 | - | - | - | 160,247 |
| | ₩ | 1,591,463 | 862,390 | 1,730,298 | 2,094,431 | 6,278,582 |

(ii) As of December 31, 2015

| *In millions of won* | | Less than 1 year | 1-2 years | 2-5 years | More than 5 years | Total |
|---|---|---|---|---|---|---|
| Borrowings and debentures | ₩ | 619,030 | 885,807 | 2,054,808 | 1,903,218 | 5,462,863 |
| Trade and other payables | | 336,125 | 4,983 | 18,923 | 585 | 360,616 |
| Financial guarantee liabilities | | 124,935 | 30,472 | - | - | 155,407 |
| | ₩ | 1,080,090 | 921,262 | 2,073,731 | 1,903,803 | 5,978,886 |

As the Group manages its liquidity based on net assets and net liabilities, the information of non-derivative financial assets is included in the above analysis.

## 40. Risk Management, continued

(2) Financial risk management, continued:

4) Liquidity risk, continued

The expected maturities for non-derivative financial assets as of December 31, 2016 and 2015 in details are as follows:

(i) As of December 31, 2016

| *In millions of won* | | Less than 1 year | 1-5 years | More than 5 years | Uncertain | Total |
|---|---|---|---|---|---|---|
| Cash and cash equivalents | ₩ | 320,431 | - | - | - | 320,431 |
| Available-for-sale financial assets | | - | - | - | 96,276 | 96,276 |
| Loans | | 1,291 | 9,302 | 4,543 | - | 15,136 |
| Trade and other receivables | | 551,851 | 17,962 | - | - | 569,813 |
| | ₩ | 873,573 | 27,264 | 4,543 | 96,276 | 1,001,656 |

(ii) As of December 31, 2015

| *In millions of won* | | Less than 1 year | 1-5 years | More than 5 years | Uncertain | Total |
|---|---|---|---|---|---|---|
| Cash and cash equivalents | ₩ | 182,151 | - | - | - | 182,151 |
| Short-term financial instruments | | 20,000 | - | - | - | 20,000 |
| Available-for-sale financial assets | | - | - | - | 16,620 | 16,620 |
| Loans | | 828 | 10,112 | 2,572 | - | 13,512 |
| Trade and other receivables | | 442,643 | 11,361 | - | - | 454,004 |
| | ₩ | 645,622 | 21,473 | 2,572 | 16,620 | 686,287 |

Derivative financial liabilities classified by maturity periods from reporting date to maturity date of contracts as of December 31, 2015 are as follows:

As of December 31, 2015

| *In millions of won* | | Less than 1 year | 1-2 years | 2-5 years | Over 5 years | Total |
|---|---|---|---|---|---|---|
| Gross settlement -Trading purpose | ₩ | 166 | - | - | - | 166 |

## 40. Risk Management, Continued

(3) Fair value risk

The fair value of the Group's actively-traded financial instruments (e.g. available-for-sale financial assets, etc.) is based on the traded market-price as of the reporting period end. The fair value of the Group's financial assets is the amount which the asset could be exchanged for or the amount a liability could be settled for.

The fair values of financial instruments where no active market exists or where quoted prices are not otherwise available are determined by using valuation techniques. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, reference to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models. If there is a valuation technique commonly used by market participants to price the instrument and that technique has been demonstrated to provide reliable estimates of prices obtained in actual market transactions, the Group uses that technique.

For trade receivables and payables, the Group considers the carrying value, net of impairment, as fair value. While for disclosure purposes, the fair value of financial liabilities is estimated by discounting a financial instrument with similar contractual cash flows using the effective interest method.

## 40. Risk Management, Continued

(3) Fair value risk, continued:

1) Fair and book value of financial assets and liabilities as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | | December 31, 2016 | | December 31, 2015 | |
|---|---|---|---|---|---|
| | | Book value | Fair value | Book value | Fair value |
| Assets recognized at fair value | | | | | |
| Available-for-sale financial assets | ₩ | 96,276 | 96,276 | 16,620 | 16,620 |
| Derivatives assets (trading) | | 1,424 | 1,424 | 32 | 32 |
| Derivatives assets (hedge accounting) | | 46,319 | 46,319 | 29,275 | 29,275 |
| Other derivative assets | | 1,705 | 1,705 | | |
| | ₩ | 145,724 | 145,724 | 45,927 | 45,927 |
| Assets carried at amortized cost | | | | | |
| Loans | ₩ | 15,000 | 15,000 | 13,199 | 13,199 |
| Trade and other receivables | | 569,428 | 569,428 | 453,636 | 453,636 |
| Short-term financial instruments | | - | - | 20,000 | 20,000 |
| Cash and cash equivalents | | 320,431 | 320,431 | 182,151 | 182,151 |
| | ₩ | 904,859 | 904,859 | 668,986 | 668,986 |
| Liabilities carried at fair value | | | | | |
| Derivatives liabilities (trading) | ₩ | - | - | 166 | 166 |
| | ₩ | - | - | 166 | 166 |
| Liabilities carried at amortized cost | | | | | |
| Debentures | ₩ | 4,585,900 | 4,868,388 | 4,729,455 | 4,940,329 |
| Unsecured borrowings | | 192,351 | 192,351 | 4,367 | 4,367 |
| Trade and other payables | | 549,001 | 549,001 | 360,550 | 360,550 |
| | ₩ | 5,327,252 | 5,609,740 | 5,094,372 | 5,305,246 |

2) The discount rate used for calculating fair value is derived from interest rates which are observable from the market, such as government bond interest rate, after considering credit spread. The discount rate used for calculating fair value as of December 31, 2016 and 2015 are as follows:

| | December 31, 2016 | December 31, 2015 |
|---|---|---|
| Derivatives | 0.87%~1.74% | 0.87~1.74% |
| Borrowings | 1.49%~1.64% | 1.63~2.16% |

## 40. Risk Management, Continued

(3) Fair value risk, continued:

3) Fair value hierarchy

The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value, classified as Level 1, 2, or 3, based on the degree to which the fair value is observable.

- Level 1 : Unadjusted quoted prices in active markets for identical assets or liabilities:
- Level 2 : Inputs other than quoted prices that are observable for the asset or liability either directly or indirectly
- Level 3 : Inputs that are not based on observable market data.

Fair values of financial instruments by hierarchy level as of December 31, 2016 and 2015, respectively, are as follows:

(i) As of December 31, 2016

| *In millions of won* | | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|---|
| Financial assets at fair value: | | | | | |
| Available-for-sale financial assets | ₩ | 71,840 | - | 16,455 | 88,295 |
| Derivative assets | | - | 47,743 | 1,705 | 49,448 |
| | | 71,840 | 47,743 | 18,160 | 137,743 |

(ii) As of December 31, 2015

| *In millions of won* | | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|---|
| Financial assets at fair value: | | | | | |
| Available-for-sale financial assets | ₩ | - | - | 12,811 | 12,811 |
| Derivative assets | | - | 29,307 | - | 29,307 |
| | | - | 29,307 | 12,811 | 42,118 |
| Financial liabilities at fair value: | | | | | |
| Derivative liabilities | | - | (166) | - | (166) |
| | ₩ | - | 29,141 | 12,811 | 41,952 |

Changes in Level 3 financial assets for the years ended December 31, 2016 and 2015, respectively, are as follows:

| *In millions of won* | | **December 31, 2016** | **December 31, 2015** |
|---|---|---|---|
| Beginning balance | ₩ | 12,811 | 12,147 |
| Valuation | | 5,349 | 664 |
| Ending balance | ₩ | 18,160 | 12,811 |

## 41. Related Party Transactions

(1) The nature of the Group's relationship with related parties as of December 31, 2016 is as follows:

| Control relationship | Related party |
|---|---|
| Parent company | Korea Electric Power Corporation |
| Associates | Taebaek Wind Power Co., Ltd. |
| | Taebaek Guinemi Wind Power Co., Ltd. |
| | PyeongChang Wind Power Co., Ltd. |
| | Daeryun Power Co., Ltd. |
| | Changjuk Wind Power Co., Ltd. |
| | KNH Solar Co., Ltd. |
| | Korea Offshore Wind Power Co., Ltd. |
| | Hadong Mineral Fiber Co., Ltd. |
| | Jeongam Wind Power Co., Ltd. |
| | Korea Power Engineering Co., Ltd. |
| | KS Solar Co., Ltd. |
| | Naepo green energy Co., Ltd. |
| | Samcheok Eco Materials Co., Ltd. |
| | Solar School Plant Co., Ltd. |
| | KEPCO Energy Solution Co., Ltd. |
| Joint ventures | Daejung Offshore Wind Power Co., Ltd. |
| | Daehan Wind Power PSC |
| | Daegu Green Power Co., Ltd. |
| | Kelar S.A. |
| Other related companies | Korea South-East Power Co., Ltd. |
| | Korea Western Power Co., Ltd. |
| | Korea Midland Power Co., Ltd. |
| | Korea East-West Power Co., Ltd. |
| | KEPCO KDN Co., Ltd. |
| | Korea Gas Corporation |
| | Korea Electronic Power Industrial Development Co., Ltd. |
| | Korea Power Exchange |
| | KEPCO KPS Co., Ltd. |
| | KEPCO Engineering & Construction Inc. |
| | Korea Hydro & Nuclear Power Co., Ltd. |
| | Korea Development Bank |
| | DS Power Co., Ltd. |
| | HeeMang Sunlight Power Co., Ltd. |
| | Others |

## 41. Related Party Transactions, Continued

(2) All transactions between KOSPO and its consolidated subsidiaries are eliminated in consolidation, and transactions with related parties other than subsidiaries for the years ended December 31, 2016 and 2015 are as follows:

*In millions of won*

| Related parties | Transaction type | Sales and others | | Purchase and others | |
|---|---|---|---|---|---|
| | | **December 31, 2016** | **December 31, 2015** | **December 31, 2016** | **December 31, 2015** |
| Korea Electric Power Corporation | Power sales and others | ₩ 4,185,465 | 4,292,772 | 76,335 | 39,981 |
| Kelar S.A. | Service revenue | 1,702 | 6,229 | | - |
| KNH Solar Co., Ltd. | REC purchase | - | - | 3,159 | 3,423 |
| Changjuk Wind Power Co., Ltd. | Service revenue /REC purchase | 851 | 742 | 2,920 | 2,531 |
| Taebaek Wind Power Co., Ltd. | Service revenue /REC purchase | 776 | 850 | 2,893 | 2,584 |
| PyeongChang Wind Power Co., Ltd | Service revenue /REC purchase | 452 | - | 1,594 | - |
| Busan Solar Co., Ltd. | REC purchase | - | - | 539 | 2,851 |
| KS Solar Co., Ltd. | REC purchase | - | - | 2,916 | 4,276 |
| Korea Power Engineering Co., Ltd. | Service revenue / Repairing expenses and others | 1,414 | 1,743 | 723 | 3,241 |
| Korea South-East Power Co., Ltd. | Others | 29 | 28 | 29 | - |
| Korea East-West Power Co., Ltd. | Others | 29 | 9,589 | 17 | - |
| Korea Midland Power Co., Ltd. | Others | 29 | 28 | 146 | 26 |
| Korea Western Power Co., Ltd. | Rental income/ Rental expense and others | 769 | 983 | 4,355 | 1,742 |
| Korea Electronic Power Industrial Development Co., Ltd. | Rental income/ Service cost and others | 216 | 210 | 33,274 | 31,699 |
| KEPCO KDN Co., Ltd. | Repairing expenses and others | - | - | 17,963 | 15,556 |
| KEPCO KPS Co., Ltd. | Rental income/ Repairing expenses and others | 532 | 448 | 70,686 | 83,941 |
| Korea Gas Corporation | LNG purchase and others | - | 3,262 | 1,242,616 | 1,589,790 |
| Korea Power Exchange | Power trading fee | - | - | 4,670 | 4,225 |
| KEPCO Engineering & Construction Inc. | Purchasing property and others | - | - | 16,527 | 5,606 |
| KEPCO Energy Solution Co., Ltd. | Service revenue | 44 | - | - | - |

## 41. Related Party Transactions, Continued

(3) Receivables and payables arising from related party transactions as of December 31, 2016 and December 31, 2015 are as follows:

(i) As of December 31, 2016

*In millions of won*

| Related parties | Transaction type | | Receivables | Payables |
|---|---|---|---|---|
| Korea Electric Power Corporation | Trade receivables | ₩ | 464,045 | - |
| | Non-trade receivables | | 73,734 | - |
| | Other payables | | - | 815 |
| Changjuk Wind Power Co., Ltd. | Trade receivables | | 100 | - |
| | Other payables | | - | 334 |
| Taebaek Wind Power Co., Ltd. | Trade receivables | | 112 | - |
| | Other payables | | - | 304 |
| PyeongChang Wind Power Co., Ltd. | Other payables | | - | 255 |
| KNH Solar Co., Ltd. | Other payables | | - | 204 |
| Korea South-East Power Co., Ltd. | Other payables | | - | - |
| Korea East-West Power Co., Ltd. | Non-trade receivables | | 95 | - |
| Korea Midland Power Co., Ltd. | Other payables | | - | 135 |
| Korea Western Power Co., Ltd. | Non-trade receivables | | - | - |
| | Other payables | | - | 627 |
| Korea Electronic Power Industrial Development Co., Ltd. | Other payables | | - | 1,406 |
| KEPCO KDN Co., Ltd. | Other payables | | - | 1,362 |
| KEPCO KPS Co., Ltd. | Other payables | | - | 4,312 |
| Korea Power Exchange | Other payables | | - | 3 |
| Korea Gas Corporation | Trade payables | | - | 123,762 |
| KEPCO Energy Solution Co., Ltd. | Non-trade receivables | | 39 | - |

(ii) As of December 31, 2015

*In millions of won*

| Related parties | Transaction type | | Receivables | Payables |
|---|---|---|---|---|
| Korea Electric Power Corporation | Trade receivables | ₩ | 330,444 | - |
| | Non-trade receivables | | 99,889 | - |
| | Other payables | | - | 728 |
| Changjuk Wind Power Co., Ltd. | Trade receivables | | 153 | - |
| Taebaek Wind Power Co., Ltd. | Trade receivables | | 147 | - |
| Busan Solar Co., Ltd. | Trade payables | | - | 208 |
| KS Solar Co., Ltd. | Other payables | | - | 281 |
| Korea South-East Power Co., Ltd. | Other payables | | - | 54 |
| Korea East-West Power Co., Ltd. | Non-trade receivables | | 340 | - |
| | Other payables | | - | 107 |
| Korea Midland Power Co., Ltd. | Other payables | | - | 107 |
| Korea Western Power Co., Ltd. | Non-trade receivables | | 83 | - |
| | Other payables | | - | 689 |
| Korea Electronic Power Industrial Development Co., Ltd. | Other payables | | - | 698 |
| KEPCO KDN Co., Ltd. | Other payables | | - | 292 |
| KEPCO KPS Co., Ltd. | Other payables | | - | 3,331 |
| Korea Power Exchange | Other payables | | - | 2 |
| Korea Gas Corporation | Trade payables | | - | 18,545 |

## 41. Related Party Transactions, Continued

(4) Loans arising from related party transactions for the years ended December 31, 2016 is as follows

| *In millions of won* | **Beginning Balance** | **Loans** | **Ending Balance** |
|---|---|---|---|
| Daehan Wind Power PSC | - | 683 | 683 |

(5) Guarantees and pledged assets provided to related parties as of December 31, 2016 are as follows:

1) Provided guarantees

*In thousands of usd*

| Primary guarantor | Received Company | Type of guarantees | | Credit limit | Guarantee |
|---|---|---|---|---|---|
| Korea Southern Power Co., Ltd. | Kelar S.A | Guarantees for supplemental funding | $ | 11,700 | Hana Bank |
| | | | | 39,000 | SMBC, MIZUHO |
| | | | | | Bank of Tokyo-Mitsubishi UFJ, Ltd. |
| | | | | | Natixis |
| | | Debt guarantees | | 26,000 | BANCO SANTANDER-CHILE |
| | | | | 106,600 | SMBC, MIZUHO |

2) Pledged assets

*In millions of won*

| Primary guarantor | Secondary guarantor | Type of guarantees | | Book Value | Guarantee |
|---|---|---|---|---|---|
| Korea Southern Power Co., Ltd. | Daegu Green Power Co., Ltd. | Collateralized money invested | ₩ | 46,226 | Shinhan bank |
| | Daeryun Power Co., Ltd. | Collateralized money invested | | 25,477 | Korea Development Bank and others |
| | Changjuk Wind Power Co., Ltd. | Collateralized money invested | | 3,801 | Woori bank, Shinhan bank |
| | PyeongChang Wind Power Co., Ltd. | Collateralized money invested | | 3,875 | Woori bank, Shinhan bank |
| | KNH Solar Co., Ltd. | Collateralized money invested | | 1,296 | Shinhan bank, Kyobo life insurance Co., Ltd. |
| | KS Solar Co., Ltd. | Collateralized money invested | | 637 | Shinhan capital |
| | DS Power Co., Ltd. | Collateralized money invested | | 2,900 | Korea Development Bank and others |

## 41. Related Party Transactions, Continued

(5) Guarantees and pledged assets provided to related parties as of December 31, 2016 are as follows, continued:

3) Guarantees for supplemental funding, (etc.)

① Taebaek Wind Power Co., Ltd. has been promoting the wind power plant construction business in Samcheok and Taebaek city and has received loan fundings from financial institutions. If the reserve balances for repayment of principal and interest based on the loan agreements are insufficient, each investor in Taebaek Wind Power Co., Ltd., including the Group, has to provide financial support by way of a subordinated loan to the extent of ₩1 billion a year, based on each investor's proportionate investment.

② Daeryun Power Co., Ltd. is currently constructing a wind power plant facility in YangJu Okjung, HeaChun, which is financed by financial institutions.

Each investor in Daeryun Power Co., Ltd., including the Group, is obligated to provide funds by way of additional investment or subordinated loan to the extent of ₩8 billion, based on each investor's proportionate investment, if excess investment costs occur when combined heat and power generation plants or related plants are in construction, or the reserve balance for investment is insufficient due to a change in a schedule or an influx of construction costs, or benefit of time is forfeited. Other investors have the obligation to pay acquisition costs of dissenting investors if Daeryun Power Co., Ltd. merges.

The Daeryun Power's shareholders hold call options to purchase the common stocks which were converted from the subordinated loan commitments. On the other hand, financial investors hold put options to sell the shares to Daeryun Power's shareholders. If the put options are not exercised until the expiration date, the put options are deemed exercised on that date. Therefore, the Group is deemed to have acquired the common stocks amounting to ₩18,645 million converted from subordinated loan commitments.

③ Changjuk Wind Power Co., Ltd. is currently constructing a wind power plant facility in Taebaek and the Group has financed the project through loans from financial institutions. Each investor in Changjuk Wind Power Co., Ltd., including the Group, is obligated to provide funds by way of a subordinated loan to the extent of ₩300 million a year, based on each investor's proportionate investment if a cash shortage for repayment of principal and interest based on the loan agreement occurs.

## 41. Related Party Transactions, Continued

(5) Guarantees and pledged assets provided to related parties as of December 31, 2016 are as follows, continued:

3) Guarantees for supplemental funding, (etc), continued

④ KNH Solar Co., Ltd. has obtained loans from financial institutions for the construction of a solar power plant and the generation and sale of electricity. Each investor, including the Group, is obligated to fulfill the obligation owed by KNH Solar Co., Ltd. based on each investor's proportionate investment if construction investors of KNH Solar Co., Ltd. do not fulfill their obligations that guarantee the average electricity supply per day and secure business land.

⑤ DS Power Co., Ltd. is currently conducting an energy supply business project and has obtained necessary loans from financial institutions. If the excess investment costs occur, the Group is obligated to provide funds by way of subordinated loan based on each investor's proportionate investment in accordance of the loan agreement. Also, investors including the Group have to compensate for damages if construction is not completed within the pre-determined period.

Daesung Industrial Co., Ltd. has a call option to purchase the shares of the DS-Power Co., Ltd. which the Group owned. With regard to the call opiton, Daesung Industrial Co., Ltd. or 3rd party who designated by Daesung Industrial Co., Ltd. can purchase the shares. On the other hand, the Group has a put option to sell the shares of the DS-Power Co., Ltd. to Daesung Industrial Co., Ltd. The fair value of put option is ₩1,705 million as of December 31, 2016 and the Group has recognized the put option as derivative assets.

⑥ PyeongChang Wind Power Co., Ltd. is currently conducting an energy supply business project and has obtained necessary loans from financial institutions. If the excess construction costs occur, investors are additional investment are obligated to provide funds by way of subordinated loan based on each investor's proportionate investment in accordance with the loan agreement. If PyeongChang Wind Power Co., Ltd. enters into an O&M agreement with Korea Power Engineering Co., Ltd. which is an associate of the Group, the Group is required to provide a performance guarantee for the contract.

(6) Salaries and other compensations to the key members of management of the company for the years ended December 31, 2016 and 2015 are as follows:

*In millions of won*

| Type | Division | | December 31, 2016 | December 31, 2015 |
|---|---|---|---|---|
| Salaries | Managing Director Other | ₩ | 623 | 404 |
| Retirement and severance benefits | Managing Director Other | | 19 | 17 |
| | | ₩ | 642 | 421 |

## 42. Non-cash Transactions

Significant non-cash transactions for years ended December 31, 2016 and 2015 are as follows:

| *In millions of won* | **December 31, 2016** | **December 31, 2015** |
|---|---|---|
| Reclassification of long-term borrowings to current portion | 366 | 566 |
| Reclassification of long-term debentures to current portion | 766,882 | 479,661 |
| Reclassification of construction-in-progress | 2,436,949 | 911,691 |
| Reclassification of long-term other payables to current portion | 195 | 337 |
| Investment in kind | 80,533 | - |

## 43. Commitments and Contingencies

(1) Ongoing litigations as of December 31, 2016 and 2015 are as follows:

| *In millions of won, except number of cases* | Number of cases | | Claim amount | |
|---|---|---|---|---|
| | **December 31, 2016** | **December 31, 2015** | **December 31, 2016** | **December 31, 2015** |
| Ongoing litigations-defendant(a) | 27 | 21 | 67,557 | 46,331 |
| Ongoing litigations-plaintiff(b) | 2 | 4 | 160,805 | 2,542 |

(a) The details of ongoing litigations-defendant as of December 31, 2016 are as follows:

*In millions of won*

| Courthouse | Plaintiff | Defendant | Contents | Amount of litigation | Progress |
|---|---|---|---|---|---|
| Busan high court | Individuals | KOSPO | Compensation for damage | ₩ 3,695 | Pending |
| Busan high court | Individuals | KOSPO | Compensation for damage | 3,807 | Pending |
| Supreme count of Korea(*1) | individuals | KOSPO and 4 Electric Power Corporations | Wage | 19,230 | Pending |
| Supreme count of Korea(*1) | individuals | KOSPO | Wage | 9,649 | Pending |
| Busan high court(*1) | Dae Chang Engineering & Construction, etc. | KOSPO | Cost of construction | 3,297 | Pending |
| Seoul central district court(*1) | Individuals | KOSPO and 4 Electric Power Corporations | Wage | 8,934 | Pending |
| Seoul central district court(*1) | Individuals | KOSPO | Wage | 9,999 | Pending |
| Seoul central district court, etc.(*1) | Individuals | KOSPO, etc. | Compensation for damage, etc. | 8,946 | Pending |

(*1) As of December 31, 2016, the Group recognized ₩7,373 million as provision in reference to the above litigations. However, regarding other litigations except for the litigations with provision, the management does not believe that the outcome of the litigations will have a significant impact on business practice and financial statements.

## 43. Commitments and Contingencies, Continued

(1) Ongoing litigations as of December 31, 2016 and 2015 are as follows, continued:

(b) The details of ongoing litigations-plaintiff as of December 31, 2016 are as follows:

*In millions of won*

| Courthouse | Plaintiff | Defendant | Contents | | Amount of litigation | Progress |
|---|---|---|---|---|---|---|
| Seoul central district court | KOSPO | Hyundai engineering & Construction Co., Ltd., etc | Liquidated damages for delay | ₩ | 160,742 | Pending |
| Seoul central district court | KOSPO | Seoul guarantee insurance company | Insurance | | 63 | Pending |

In 2016, Hyundai engineering & Construction Co., Ltd., GS Engineering & Construction Corp and Hansol SeenTec Co., Ltd. filed a request for arbitration against the Company because of additional construction costs. The arbitration request was field in the Korean Commercial Arbitration Board but the Company has not recognized any provision because the probability of economic benefit outflow is remote and the related amount cannot be reliably estimated.

(2) There are no guarantees provided to third parties as of December 31, 2016.

## 43. Commitments and Contingencies, Continued

(3) Credit lines provided by financial institutions as of December 31, 2016 are as follows:

*In millions of won, In thousands of usd*

| Description | Financial Institutions | Currency | Credit limit | Exercised amount |
|---|---|---|---|---|
| Commitments on Bank-overdraft | Kookmin Bank | KRW | 50,000 | - |
| | Hana Bank | KRW | 25,000 | - |
| | Nonghyup Bank | KRW | 50,000 | - |
| Loan limit | Hana Bank | USD | 34,150 | - |
| | Export-Import Bank of Korea | USD | 100,000 | - |
| | Industrial and Commercial Bank of China Limited | USD | 100,000 | - |
| | The Korea Development Bank | USD | 50,000 | - |
| | BNP Paribas | USD | 30,000 | - |
| | Deutsche Bank AG | USD | 50,000 | - |
| | Mizuho Bank | USD | 50,000 | - |
| | SMBC Bank | USD | 50,000 | - |
| | Shinhan Bank | KRW | 60,100 | 26,430 |
| | Shinhan life insurance co., ltd. | KRW | 45,000 | 19,791 |
| | Kyobo life insurance co., ltd. | KRW | 35,000 | 15,400 |
| | NongHyup Property & Casualty Insurance Co., Ltd. | KRW | 30,000 | 13,200 |
| | National Credit Union Federation of Korea | KRW | 20,000 | 8,800 |
| | Nonghyup Bank | KRW | 60,000 | 26,379 |
| | Shinhan capital | KRW | 80,000 | 80,000 |
| Certification of payment on L/C | Kookmin Bank | USD | 30,000 | 3,976 |
| | Shinhan Bank | USD | 50,000 | 3,843 |
| | Woori Bank | USD | 20,000 | 4,326 |
| | Hana Bank | USD | 14,580 | 2,304 |
| | Nonghyup Bank | USD | 20,000 | 7,481 |
| | Hongkong&Shanghai Banking Corp | USD | 50,000 | - |
| | Shinhan Bank | KRW | 19,721 | 19,721 |
| Limit guarantees | Hongkong&Shanghai Banking Corp. | USD | 40,000 | - |
| Credit card | Busan Bank | KRW | 85 | 6 |
| Others | Nonghyup Bank | KRW | 50,000 | - |
| | Wonduck Nonghyup | KRW | 1 | 1 |
| Inclusive credit | Credit Agricole | USD | 50,000 | - |
| | DBS Bank Ltd. | USD | 100,000 | - |
| | Societe Generale | USD | 50,000 | - |

## 43. Commitments and Contingencies, Continued

(4) As of December 31, 2016, assets provided as collaterals to financial institutions by the Group are follows:

| Guarantor | Guarantee | Type of guarantee | Amount | Description |
|---|---|---|---|---|
| Korea Southern Power Co., Ltd. | Shinhan Bank, etc. | Shareholdings of KOSPO Youngnam Power Co., Ltd. | 40,000 | Collateral for borrowings |
| KOSPO Youngnam Power Co., Ltd. | Shinhan Bank, etc. | Cash and cash equivalents, etc. | 396,120 | Collateral for borrowings |

(*) The Company provided shares of KOSPO Youngnam Power Co., Ltd., one of its subsidiaries, as collateral related to borrowings. Additionally, pledge for insurance claims, pledge for deposits and other pledges were established.

(5) Details of long-term marine transportation commitments for the safe transportation of bituminous coal as of December 31, 2016 are as follows:

| Company | Marine transportation | Contract periods |
|---|---|---|
| SK Shipping Co., Ltd. | K-Faith | 2009.12 ~ 2024.11 |
| Pan Ocean Co., Ltd. | Pan champion, etc. | 2010.09 ~ 2029.07 |
| SW Shipping Co., Ltd. | Sea Honesty | 2014.04 ~ 2029.03 |
| Korea Line Co., Ltd. | Adonis, etc. | 2005.07 ~ 2026.05 |
| Samsun Logix Co., Ltd. | Power Loong | 2007.10 ~ 2017.09 |
| H-LINE Co., Ltd. | Roberts bank, etc. | 2008.09 ~ 2034.07 |
| Woo Yang Shipping Co., Ltd. | Banders | 2015.06 ~ 2025.05 |
| Unico Logistics Co., Ltd. | Stella | 2016.06 ~ 2028.05 |

## 43. Commitments and Contingencies, Continued

(6) Purchase commitments relating to bituminous coal and other raw materials as of December 31, 2016 are as follows:

| Supplier | Contract periods | Amount (thousand tons) |
|---|---|---|
| Australia : | | |
| NCA Marketing Company Pty Ltd | 2001 ~ 2018 | 800 |
| BHP Billiton Marketing AG | 2005 ~ 2017 | 552 |
| Moolarben Coal Sales Pty Limited | 2009 ~ 2027 | 625 |
| Coal & Allied Operations Pty Limited(Rio Tinto) | 2013 ~ 2018 | 276 |
| Macquarie Bank Ltd | 2013 ~ 2018 | 276 |
| Noble Resources International Pte Ltd | 2015 ~ 2019 | 414 |
| Noble Resources International Pte Ltd | 2015 ~ 2019 | 414 |
| Trafigura Pte Ltd | 2016 ~ 2018 | 552 |
| Trafigura Pte Ltd | 2017 ~ 2019 | 290 |
| Trafigura Pte Ltd | 2017 ~ 2019 | 532 |
| Whitehaven | 2013 ~ 2017 | 540 |
| Vitol | 2016 ~ 2018 | 133 |
| Russia : | | |
| SUEK AG | 2012 ~ 2017 | 260 |
| SUEK AG | 2016 ~ 2018 | 290 |
| Carbo One | 2016 ~ 2018 | 145 |
| Indonesia : | | |
| PT.Kedap Sayaaq | 2013 ~ 2028 | 1000~3000 |
| PT.Indominco Mandiri | 2004 ~ 2017 | 500 |
| PT.Berau Coal | 2008 ~ 2017 | 600 |
| MSJ | 2004 ~ 2018 | 500 |
| Korea Polymer | 2017 ~ 2019 | 222 |
| KCH Energy Co Ltd | 2015 ~ 2019 | 240 |
| Glencore International AG | 2015 ~ 2019 | 320 |
| Glencore International AG | 2015 ~ 2019 | 320 |
| AVRA Commodities Pte Ltd | 2015 ~ 2020 | 320 |
| Glencore International AG | 2016 ~ 2018 | 320 |
| Mercuria Energy Trading Pte Ltd | 2016 ~ 2018 | 560 |
| USA : | | |
| Cloud Peak Energy Logistics LLC. | 2011 ~ 2017 | 300 |
| Light House | 2012 ~ 2017 | 500 |
| Republic of South Africa: | | |
| Anglo American | 2017 ~ 2019 | 290 |

## 43. Commitments and Contingencies, Continued

(7) Commitments for acquisition of property, plant and equipment as of December 31, 2016 and 2015 are as follows:

| *In millions of won* | December 31, 2016 | | December 31, 2015 | |
|---|---|---|---|---|
| Description | Contract | Residual | Contract | Residual |
| Architectural engineering of Samcheok #1, 2 and others ₩ | 2,411,775 | 227,156 | 2,318,300 | 492,150 |

# Independent Auditors' Report

The Board of Directors and Shareholders
Korea Southern Power Co., Ltd.:

We have audited the accompanying consolidated financial statements of Korea Southern Power Co., Ltd. and its subsidiaries (the "Group"), which comprise the consolidated statements of financial position as at December 31, 2015 and 2014, the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

**Management's Responsibility for the Consolidated Financial Statements**
Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Korean International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

**Auditors' Responsibilities**
Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Korean Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessment, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements 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 entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

**Opinion**
In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at December 31, 2015 and 2014 and of its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean International Financial Reporting Standards.

**Other Matter**

The procedures and practices utilized in the Republic of Korea to audit such separate financial statements may differ from those generally accepted and applied in other countries.

KPMG Samjong Accounting Corp.

Seoul, Korea
March 9, 2016

This report is effective as of March 9, 2016, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

# KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES
## Consolidated Statements of Financial Position
**As of December 31, 2015 and December 31, 2014**

| *In millions of won* | Note | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|---|
| **Assets** | | | | |
| Cash and cash equivalents | 6,7,39 | ₩ | 182,151 | 10,839 |
| Current financial assets | 7,10,11,12,39 | | 20,796 | 1,199 |
| Trade and other receivables, net | 7,8,14,39,40 | | 442,489 | 572,631 |
| Inventories, net | 13 | | 144,860 | 175,722 |
| Current non-financial assets | 15 | | 33,816 | 58,777 |
| **Total current assets** | | | 824,112 | 819,168 |
| Non-current financial assets | 7,9,10,11,39 | | 58,330 | 39,292 |
| Non-current trade and other receivables, net | 7,8,14,39 | | 11,147 | 16,959 |
| Property, plant and equipment, net | 5,18,24 | | 8,157,918 | 7,632,921 |
| Intangible assets, net | 5,19 | | 24,931 | 29,974 |
| Investments in associates and joint ventures | 5,17,40 | | 170,317 | 172,218 |
| Non-current non-financial assets | 5,15 | | 13,701 | 14,523 |
| **Total non-current assets** | | | 8,436,344 | 7,905,887 |
| **Total assets** | | ₩ | 9,260,456 | 8,725,055 |

*See accompanying notes to the consolidated financial statements.*

## KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES
## Consolidated Statements of Financial Position, Continued
**As of December 31, 2015 and December 31, 2014**

| *In millions of won* | Note | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|---|
| **Liabilities** | | | | |
| Trade and other payables | 7,20,39,40 | ₩ | 336,097 | 576,122 |
| Current financial liabilities | 7,10,21,39 | | 480,454 | 113,112 |
| Income tax payables | | | 34,063 | 13,996 |
| Current non-financial liabilities | 25 | | 18,481 | 6,018 |
| Current provisions | 23,39,42 | | 70,295 | 91,558 |
| **Total current liabilities** | | | 939,390 | 800,806 |
| Non-current trade and other payables, net | 7,20,39 | | 24,453 | 24,474 |
| Non-current financial liabilities, net | 7,10,21,39 | | 4,253,534 | 4,125,704 |
| Employee benefits obligations, net | 22,39 | | 58,307 | 50,211 |
| Deferred tax liabilities, net | 36 | | 273,809 | 249,086 |
| Non-current provisions | 23,39 | | 425 | - |
| **Total non-current liabilities** | | | 4,610,528 | 4,449,475 |
| **Total liabilities** | | | 5,549,918 | 5,250,281 |
| **Equity** | | | | |
| Share capital | 26 | | 1,773,522 | 1,773,522 |
| Retained earnings | 27,28 | | 1,918,840 | 1,708,255 |
| Other components of equity | 9,10,29 | | (6,825) | (7,003) |
| **Equity attributable to owners of the Company** | | | 3,685,537 | 3,474,774 |
| **Non-controlling interests** | 16 | | 25,001 | - |
| **Total equity** | | | 3,710,538 | 3,474,774 |
| **Total liabilities and equity** | | ₩ | 9,260,456 | 8,725,055 |

*See accompanying notes to the consolidated financial statements.*

# KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES
## Consolidated Statements of Comprehensive Income
**For the years ended December 31, 2015 and 2014**

| *In millions of won, except earnigns per share information* | Note | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|---|
| Sales | 5,30,40 | ₩ | 4,332,692 | 6,243,566 |
| Cost of sales | 37,40 | | (3,885,215) | (6,035,660) |
| **Gross profit** | | | 447,477 | 207,906 |
| Selling and administrative expenses | 5,18,19,22,31, 37,39,40 | | (77,117) | (69,575) |
| **Operating income** | 5 | | 370,360 | 138,331 |
| Other non-operating income | 32,40 | | 13,210 | 16,479 |
| Other non-operating expenses | 23,32 | | (22,353) | (1,490) |
| Other profit (loss), net | 7,33,39,40 | | (37,035) | (7,680) |
| Finance income | 7,10,34,39 | | 39,582 | 25,490 |
| Finance expenses | 7,9,10,35,39,40 | | (98,869) | (87,048) |
| Equity method income (loss) of associates | 5,17 | | 90 | (4,862) |
| **Profit before income tax** | | | 264,985 | 79,220 |
| Income tax expense | 5,36 | | (43,534) | (15,177) |
| **Profit for the year** | 5 | | 221,451 | 64,043 |
| **Other comprehensive income (loss):** | | | | |
| **Items that will not be reclassified subsequently to profit or loss** | | | | |
| Defined benefit plan actuarial losses, net of tax | 22,27 | | (548) | (9,850) |
| Share in other comprehensive loss of associates and joint ventures, net of tax | 17,27 | | (45) | (56) |
| **Items that will be reclassified subsequently to profit or loss** | | | | |
| Net change in the unrealized fair value of available-for-sale financial assets, net of tax | 7,9,29,39 | | 503 | 120 |
| Net change in the unrealized fair value of derivatives using cash flow hedge accounting, net of tax | 7,10,29 | | 2,351 | (8,384) |
| Share in other comprehensive loss of associates and joint ventures, net of tax | 17,29 | | (2,660) | (181) |
| Foreign currency translation of foreign operations, net of tax | 29 | | (16) | (467) |
| **Total comprehensive income for the year** | | | 221,036 | 45,225 |
| **Profit attributable to** | | | | |
| Owners of the Company | | | 221,450 | 64,043 |
| Non-controlling interests | 16 | | 1 | - |
| **Profit for the year** | | | 221,451 | 64,043 |
| **Total comprehensive income attributable to:** | | | | |
| Owners of the Company | | | 221,035 | 45,225 |
| Non-controlling interests | | | 1 | - |
| **Total comprehensive income for the year** | | ₩ | 221,036 | 45,225 |
| **Earnings per share** | | | | |
| Basic and diluted earnings per share | 38 | ₩ | 4,839 | 1,399 |

*See accompanying notes to the consolidated financial statements.*

## KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES
## Consolidated Statements of Changes in Equity
**For the years ended December 31, 2015 and 2014**

*In millions of won*

| | Equity attributable to owners of the Company | | | | | |
|---|---|---|---|---|---|---|
| | Share capital | Retained earnings | Other components of equity | Subtotal | Non-controlling Interests | Total equity |
| **Balance as of January 1, 2014** | ₩ 1,773,522 | 1,684,918 | 1,909 | 3,460,349 | - | 3,460,349 |
| **Total comprehensive income :** | | | | | | |
| Profit for the year | - | 64,043 | - | 64,043 | - | 64,043 |
| **Items that will not be reclassified subsequently to profit or loss**: | | | | | | |
| Defined benefit plan actuarial losses, net of tax | - | (9,850) | - | (9,850) | - | (9,850) |
| Share in other comprehensive loss of associates and joint ventures, net of tax | - | (56) | - | (56) | - | (56) |
| **Items that will be reclassified subsequently to profit or loss:** | | | | | | |
| Net changes in the unrealized fair value of available-for-sale financial assets, net of tax | - | - | 120 | 120 | - | 120 |
| Net change in the unrealized fair value of derivatives using cash flow hedge accounting, net of tax | - | - | (8,384) | (8,384) | - | (8,384) |
| Share in other comprehensive loss of associates and joint ventures, net of tax | - | - | (181) | (181) | - | (181) |
| Foreign currency translation of foreign operations, net of tax | - | - | (467) | (467) | - | (467) |
| **Transactions with owners of the Company, recognized directly in equity** | | | | | | |
| Dividends paid | - | (30,800) | - | (30,800) | - | (30,800) |
| **Balance as of December 31, 2014** | ₩ 1,773,522 | 1,708,255 | (7,003) | 3,474,774 | - | 3,474,774 |

*See accompanying notes to the consolidated financial statements.*

*In millions of won*

| | Equity attributable to owners of the Company | | | | | |
|---|---|---|---|---|---|---|
| | Share capital | Retained earnings | Other components of equity | Subtotal | Non-controlling Interests | Total equity |
| **Balance at January 1, 2015** | ₩ 1,773,522 | 1,708,255 | (7,003) | 3,474,774 | - | 3,474,774 |
| **Total comprehensive income :** | | | | | | |
| Profit for the year | - | 221,450 | - | 221,450 | 1 | 221,451 |
| Items that will not be reclassified subsequently to profit or loss: | | | | | | |
| Defined benefit plan actuarial losses, net of tax | - | (548) | - | (548) | - | (548) |
| Share in other comprehensive loss of associates and joint ventures, net of tax | - | (45) | - | (45) | - | (45) |
| Items that will be reclassified subsequently to profit or loss: | | | | | | |
| Net changes in the unrealized fair value of available-for-sale financial assets, net of tax | - | - | 503 | 503 | - | 503 |
| Net change in the unrealized fair value of derivatives using cash flow hedge accounting, net of tax | - | - | 2,351 | 2,351 | - | 2,351 |
| Share in other comprehensive loss of associates and joint ventures, net of tax | - | - | (2,660) | (2,660) | - | (2,660) |
| Foreign currency translation of foreign operations, net of tax | - | - | (16) | (16) | - | (16) |
| **Transactions with owners of the Company, recognized directly in equity :** | | | | | | |
| Dividends paid | - | (10,272) | - | (10,272) | - | (10,272) |
| Changes in consolidation scope | - | - | - | - | 25,000 | 25,000 |
| **Balance at December 31, 2015** | ₩ 1,773,522 | 1,918,840 | (6,825) | 3,685,537 | 25,001 | 3,710,538 |

*See accompanying notes to the consolidated financial statements*

## KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES
## Consolidated Statements of Cash Flows
**For the years ended December 31, 2015 and 2014**

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| **Cash flows from operating activities** | | | |
| Profit for the year | ₩ | 221,451 | 64,043 |
| Adjustments for: | | | |
| Income tax expense | | 43,534 | 15,177 |
| Interest expense | | 52,991 | 60,511 |
| Interest income | | (4,250) | (5,984) |
| Depreciation | | 517,706 | 474,628 |
| Amortization of intangible assets | | 9,391 | 7,898 |
| Retirement benefit expenses | | 15,883 | 8,269 |
| Loss on foreign currency translations, net | | 30,013 | 16,167 |
| Loss on disposals of property, plant and equipment and intangible assets, net | | 32,797 | 8,363 |
| Gain on valuation of derivatives instruments, net | | (28,986) | (14,762) |
| Loss(gain) on transactions of derivative instruments, net | | (2,594) | 3,510 |
| Equity method loss(income) of associates, net | | (90) | 4,861 |
| Loss(gain) on disposal of inventories, net | | 9,789 | (1,013) |
| Loss on impairment of available-for-sale securities | | 12,988 | 5,551 |
| Loss on disposal of financial assets | | 60 | 594 |
| Gain on assets contributed | | (4,485) | (2,219) |
| Compensation and indemnification expense | | 16,958 | - |
| Accrual of provisions | | 28,761 | 61,245 |
| | | 730,466 | 642,796 |
| Changes in: | | | |
| Trade and other receivables | | 144,771 | 35,995 |
| Inventories | | 21,203 | 31,898 |
| Non-financial assets | | (6,413) | 24,765 |
| Trade and other payables | | (283,584) | (192,635) |
| Current derivative liabilities | | 2,677 | (7) |
| Use of current provisions | | (49,598) | (34,978) |
| Non-financial liabilities | | 13,393 | (8,193) |
| Payments of retirement benefit obligations | | (11,440) | (25,922) |
| Other long-term employee benefits | | (82) | (2,365) |
| | | (169,073) | (171,442) |
| Cash generated from operating activities : | | | |
| Interest received | | 2,511 | 4,630 |
| Interest paid | | (139,735) | (122,801) |
| Dividends received | | 44 | 2,283 |
| Income tax paid | | 460 | 11,566 |
| | | (136,720) | (104,322) |
| **Net cash provided by operating activities** | ₩ | 646,124 | 431,075 |

*See accompanying notes to the consolidated financial statements.*

## KOREA SOUTHERN POWER CO., LTD. AND SUBSIDIARIES
## Consolidated Statements of Cash Flows, Continued
**For the years ended December 31, 2015 and 2014**

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| **Cash flows from investing activities** | | | |
| Increase in short-term financial instruments | ₩ | (20,000) | - |
| Decrease in loans | | 1,111 | 2,311 |
| Increase in loans | | (1,990) | (3,332) |
| Receipt of financial lease receivables | | 74 | 146 |
| Proceeds from disposals of avilable-for-sale financial assets | | 72 | 6,419 |
| Acquisition of avilable-for-sale financial assets | | (393) | - |
| Proceeds from disposal of property, plant and equipment | | 14,368 | 5,135 |
| Acquisition of property, plant and equipment | | (961,662) | (1,886,356) |
| Acquisition of intangible assets | | (285) | (199) |
| Receipt of government grants | | - | - |
| Decrease in guarantee deposits | | 13,770 | 75,014 |
| Increase in guarantee deposits | | (67) | (20,854) |
| Acquisition of investments in associates and joint ventures | | (880) | (34,448) |
| Proceeds from disposal of Investments in associates and joint ventures | | - | 747 |
| **Net cash used in investing activities** | | (955,882) | (1,855,417) |
| **Cash flows from financing activities** | | | |
| Proceeds from borrowings | | 838,000 | 1,339,981 |
| Repayment of borrowings | | (850,154) | (1,363,375) |
| Proceeds from debentures | | 578,406 | 1,754,011 |
| Repayment of debentures | | (100,000) | (308,295) |
| Capital contribution from non-controlling interest | | 25,000 | - |
| Settlement of derivative instruments | | - | (18,090) |
| Payment of cash dividends | | (10,272) | (30,800) |
| **Net cash provided by financing activities** | | 480,980 | 1,373,432 |
| **Net increase (decrease) in cash and cash equivalents** | | 171,222 | (50,910) |
| Cash and cash equivalents at beginning of the period | | 10,839 | 61,703 |
| Effect of exchange rate fluctuations | | 90 | 46 |
| **Cash and cash equivalents at end of the period** | ₩ | 182,151 | 10,839 |

*See accompanying notes to the consolidated financial statements.*

## 1. Reporting Entity

In accordance with the restructuring plan dated January 21, 1999 for the electricity industry in the Republic of Korea announced by the Ministry of Commerce, Industry and Energy and the Act on Promotion of Restructuring the Electric Power Industry published on December 23, 2000, Korea Southern Power Co., Ltd. (the "KOSPO") was incorporated on April 2, 2001 through the spin-off of the power generation division of Korea Electric Power Corporation (the "KEPCO"). KOSPO and its subsidiaries (the "Group") engage in the generation of electricity and development of electric power resources. The Group sells all generated electricity to KEPCO through the Korea Power Exchange ("KPX") in accordance with Article 31 of the Electricity Business Law. As of December 31, 2015, KEPCO holds all of the KOSPO's outstanding shares.

As of December 31, 2015, the Group operates eight thermal power units including Hadong thermal power plant, Hankyung wind power plant and Sungsan wind power plant and the Group's cumulative power generating capacity is 9,599 megawatt. The Group is currently constructing a 2,000 megawatt thermal power plant in Samcheok, which is expected to be completed in 2016.

## 2. Basis of Preparation

The financial statements have been prepared in accordance with Korean International Financial Reporting Standards ("K-IFRS"), as prescribed in the *Act on External Audits of Corporations*.

The financial statements were authorized for issue by Board of Directors on February 27th, 2015, which were submitted for approval to the shareholders' meeting to be held on March 27th, 2015.

### (1) Basis of Measurement

The financial statements have been prepared under the historical cost basis except for the following material items in the statement of financial position:

- Derivative financial instruments are measured at fair value
- Available-for-sale financial assets are measured at fair value
- Liabilities for defined benefit plans are recognized at the net of the total present value of defined benefit

### (2) Functional and Presentation Currency

These financial statements are presented in Korean Won, which is the Parent Company's functional currency that is the currency of the primary economic environment in which the Parent Company operates. All financial information presented in Korean Won has been rounded to the nearest million.

### (3) Use of Estimates and Judgments

The preparation of the financial statements in conformity with K-IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

## 2. Basis of Preparation, Continued

### (3) Use of Estimates and Judgments, Continued

1) Management judgment

Information about critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the consolidated financial statements is included in the following notes:

- Note 13: lease classification
- Note 15: consolidation scope (whether or not in fact holds dominion)
- Note 16: Classification of associates or joint ventures

2) The uncertainty of assumptions and estimates

Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next financial year are included in the following notes:

- Note 21: Employee Benefits(major assumptions of actuarial)
- Note 35: Income Taxes(recognized of deferred tax assets)
- Note 22 and 41: Provisions and Contingent liabilities.( (for the possibility of an outflow of resources and the amount)

3) Fair value measurement

The Group's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities. The Group has an established control framework with respect to the measurement of fair values. This includes a valuation team that has overall responsibility for overseeing all significant fair value measurements, including Level 3 fair values, and reports directly to the financial officer.

The valuation team regularly reviews significant unobservable inputs and valuation adjustments. If third party information, such as broker quotes or pricing services, is used to measure fair values, then the valuation team assesses the evidence obtained from the third parties to support the conclusion that such valuations meet the requirements of IFRS including the level in the fair value hierarchy in which such valuation techniques should be classified.

When measuring the fair value of an asset or a liability, the Group uses market observable data as far as possible. Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows.

3) Fair value measurement, Continued

- Level 1 : quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2 : inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3 : inputs for the asset or liability that are not based on observable market data (unobservable inputs).

## 2. Basis of Preparation, Continued

### (3) Use of Estimates and Judgments, Continued

If the inputs used to measure the fair value of an asset or a liability might be categorized in different levels of the fair value hierarchy, then 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 Group recognizes transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

Further information about the assumptions made in measuring fair values is included in the following notes:

- Note 9: Available-for-sale financial assets
- Note 38: Risk Management

## 3. Changes in Accounting Policies

The Group has adopted the following new standards and amendments to standards and interpretation with a date of initial application of January 1, 2015.

- K-IFRS No. 1019 'Employee Benefits' – Employee contributions
Amendments to K-IFRS No. 1019 introduced a practical expedient to accounting for defined benefit plan, when employees or third parties pay contributions if certain criteria are met. According to the amendments, the entity is permitted to recognize those contributions as a reduction of the service cost in the period in which the related service is rendered, instead of forecast future contributions from employees or third parties and attribute them to periods or service as negative benefits

The adoption of the amendments did not have any impact on the Group's Consolidated financial statements.

## 4. Significant Accounting Polices

Except for the changes explained in Note 3, the Group has consistently applied the following accounting policies to all periods to all periods in these consolidated financial statements. The significant accounting policies applied by the Group in preparation of its consolidated financial statements are included below.

### (1) Consolidation

1) Business combination

A business combination is accounted for by applying the acquisition method, unless it is a combination involving entities or businesses under common control.

The consideration transferred in a business combination shall be measured at fair value, which shall be calculated as the sum of the acquisition-date fair values of the assets transferred by the acquirer. When the Group recognized goodwill at the acquisition date, goodwill is tested for impairment annually by comparing their recoverable amount to their carrying amount. Also, when recognized amount (generally fair value) of the identifiable assets acquired and liabilities assumed are negative, bargain purchase gain is recognized immediately in profit or loss.

## 4. Significant Accounting Polices, Continued

### (1) Consolidation, Continued

1) Business combination, Continued

Acqusition-related costs, except for the costs to issue debt or equity securities are recognized in accordance with K-IFRS No.1032, 'Financial Instruments: Presentation' and K-IFRS No.1039, 'Financial Instruments: Recognition and Measurement' are recognized income or loss as incurred.

The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognized in profit or loss.

Any contingent consideration payable is measured at fair value at the acquisition date. If the contingent consideration is classified as equity, then it is not remeasured and settlement is accounted for within equity. Otherwise, subsequent changes in the fair value of the contingent consideration are recognized in profit or loss.

If share-based payment awards (replacement awards) are required to be exchanged for awards held by the acquiree's employees (acquiree's awards), then all or a portion of the amount of the acquirer's replacement awards is included in measuring the consideration transferred in the business combination. This determination is based on the market-based measure of the replacement awards compared with the market-based measure of the acquiree's awards and the extent to which the replacement awards relate to pre-combination service.

2) Non-controlling interests

As of the acquisition date, non-controlling interests in the acquiree are measured as the non-controlling interests' proportionate share of the acquirer's identifiable net assets.

Changes in the Group's ownership interests in subsidiaries that did not result in a loss of control are recognized in changes in equity.

3) Subsidiaries

Subsidiaries are entities controlled by the Group. Control exists when the Group has the power to govern the financial and operating policies of the other entity so as to obtain benefits from its activities. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether the Group controls another entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

4) Loss of control of a subsidiary

When the Group loses control over a subsidiary, it derecognises the assets and liabilities of the subsidiary, and any related non-controlling interests and other components of equity. Any resulting gain or loss is recognized in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

## 4. Significant Accounting Polices, Continued

### (1) Consolidation, Continued

5) Interests in equity-accounted Investees

The Group's interests in equity-control investees comprise interests in associates and joint ventures.

Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

Interests in associates and joint ventures are accounted for using the equity method. They are recognized initially at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements include the Group's share of the profit or loss and other comprehensive income of equity-accounted investees, until the date on which significant influence or joint control ceases.

6) Intra-group transactions

Intra-group balances and transactions, and any unrealized income and expenses arising from intra-group transactions, are eliminated. Unrealized gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment.

7) Business combinations under common control

Business combinations under common control are accounted for in the consolidated accounts prospectively from the date the group obtains the ownership interest. Assets and liabilities are recognized upon consolidation at their carrying amount in the consolidated financial statements of the ultimate parent entity. Any difference between the fair value of the consideration paid and the amounts at which the assets and liabilities are recorded is recognized directly in equity in the business combinations under common control reserve.

### (2) Cash and Cash Equivalents

Cash and cash equivalents comprise cash balances and call deposits with maturities of three months or less from the acquisition date that are subject to an insignificant risk of changes in their fair value, and are used by the Group in the management of its short-term commitments. Equity investments are excluded from cash and cash equivalents.

### (3) Inventories

Inventories are stated at the lower of cost and net realizable value. Cost of inventories, except for those in in-transit, are measured under the weighted average method and consists of the purchase price, cost of conversion and other costs incurred in bringing the inventories to their present location and condition. Net realizable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale.

When inventories are sold, the carrying amount of those inventories shall be recognized as an expense in the period in which the related revenue is recognized. The amount of any write-down of inventories to net realizable value and all losses of inventories shall be recognized as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories, arising from an increase in net realizable value, shall be recognized as a reduction in the amount of inventories recognized as an expense in the period in which the reversal occurs.

## 4. Significant Accounting Polices, Continued

### (4) Non-derivative Financial Assets

The Group recognizes and measures a non-derivative financial asset by the following four categories: financial assets at fair value through profit or loss, held-to-maturity investments, loans and receivables or available-for-sale financial assets. The Group recognizes financial assets in the consolidated statement of financial position when the Group becomes a party to the contractual provisions of the instrument.

Upon initial recognition, non-derivative financial assets are measured at their fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the asset's acquisition or issuance.

1) Financial assets at fair value through profit or loss

A financial asset is classified as financial assets are classified at fair value through profit or loss if it is held for trading or is designated as such upon initial recognition. Upon initial recognition, transaction costs are recognized in profit or loss when incurred. Financial assets at fair value through profit or loss are measured at fair value, and changes therein are recognized in profit or loss.

2) Held-to-maturity investments

A non-derivative financial asset with a fixed or determinable payment and fixed maturity, for which the Group has the positive intention and ability to hold to maturity, are classified as held-to-maturity investments. Subsequent to initial recognition, held-to-maturity investments are measured at amortized cost using the effective interest method.

3) Loans and receivables

Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Subsequent to initial recognition, loans and receivables are measured at amortized cost using the effective interest method except for loans and receivables of which the effect of discounting is immaterial.

4) Available-for-sale financial assets

Available-for-sale financial assets are those non-derivative financial assets that are designated as available for sale or are not classified as financial assets at fair value through profit or loss, held-to-maturity investments or loans and receivables. Subsequent to initial recognition, they are measured at fair value, which changes in fair value, net of any tax effect, recorded in other comprehensive income in equity. Investments in equity instruments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured and derivatives those are linked to and must be settled by delivery of such unquoted equity instruments are measured at cost.

5) De-recognition of financial assets

The Group derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows on the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. Any interest in transferred financial assets that is created or retained by the Group is recognized as a separate asset or liability.

If the Group retains substantially all the risks and rewards of ownership of the transferred financial assets, the Group continues to recognize the transferred financial assets and recognizes financial liabilities for the consideration received

## 4. Significant Accounting Polices, Continued

### (4) Non-derivative Financial Assets, Continued

6) Offsetting between financial assets and financial liabilities

Financial assets and financial liabilities are offset and the net amount is presented in the consolidated statement of financial position only when the Group currently has a legally enforceable right to offset the recognized amounts, and there is the intention to settle on a net basis or to realize the asset and settle the liability simultaneously.

### (5) Derivative Financial Instruments, Including Hedge Accounting

Derivatives are initially recognized at fair value. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are accounted for as described below.

1) Hedge accounting

The Group holds forward exchange contracts, interest rate swaps, currency swaps and other derivative contracts to manage interest rate risk and foreign exchange risk.

The Group designated derivatives as hedging instruments to hedge the risk of changes in the fair value of assets, liabilities or firm commitments (a fair value hedge) and foreign currency risk of highly probable forecasted transactions or firm commitments (a cash flow hedge).

On initial designation of the hedge, the Group formally documents the relationship between the hedging instrument(s) and hedged item(s), including the risk management objectives and strategy in undertaking the hedge transaction, together with the methods that will be used to assess the effectiveness of the hedging relationship.

At the inception of the hedge relationship, the Group documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Group documents whether the hedging instrument is highly effective in offsetting changes in fair values or cash flows of the hedged item.

Cash flow hedge
When a derivative is designated to hedge the variability in cash flows attributable to a particular risk associated with a recognized asset or liability or a highly probable forecasted transaction that could affect profit or loss, the effective portion of changes in the fair value of the derivative is recognized in other comprehensive income, net of tax, and presented in the hedging reserve in equity. Any ineffective portion of changes in the fair value of the derivative is recognized immediately in profit or loss.

If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated, exercised, or the designation is revoked, then hedge accounting is discontinued prospectively. The cumulative gain or loss on the hedging instrument that has been recognized in other comprehensive income is reclassified to profit or loss in the periods during which the forecasted transaction occurs. If the forecasted transaction is no longer expected to occur, then the balance in other comprehensive income is recognized immediately in profit or loss.

2) Other derivative financial instruments

Changes in the fair value of other derivative financial instrument not designated as a hedging instrument are recognized immediately in profit or loss.

## 4. Significant Accounting Polices, Continued

### (6) Impairment of Financial Assets

A financial asset not carried at fair value through profit or loss is assessed at each reporting date to determine whether there is objective evidence that it is impaired. A financial asset is impaired if objective evidence indicates that a loss event has occurred after the initial recognition of the asset, and that the loss event had a negative effect on the estimated future cash flows of that asset that can be estimated reliably. However, losses expected as a result of future events, regardless of likelihood, are not recognized.

If financial assets have objective evidence that they are impaired, impairment losses should be measured and recognized.

1) Financial assets measured at amortized cost

An impairment loss in respect of a financial asset measured at amortized cost is calculated as the difference between its carrying amount and the present value of its estimated future cash flows discounted at the asset's original effective interest rate. If it is not practicable to obtain the instrument's estimated future cash flows, impairment losses would be measured by using prices from any observable current market transactions. The Group can recognize impairment losses directly or establish a provision to cover impairment losses. If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognized (such as an improvement in the debtor's credit rating), the previously recognized impairment loss shall be reversed either directly or by adjusting an allowance account.

2) Financial assets carried at cost

If there is objective evidence that an impairment loss has occurred on an unquoted equity instrument that is not carried at fair value because its fair value cannot be reliably measured, or on a derivative asset that is linked to and must be settled by delivery of such an unquoted equity instrument, the amount of the impairment loss is measured as the difference between the carrying amount of the financial asset and the present value of estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment losses shall not be reversed.

3) Available-for-sale financial assets

When a decline in the fair value of an available-for-sale financial asset has been recognized in other comprehensive income and there is objective evidence that the asset is impaired, the cumulative loss that had been recognized in other comprehensive income shall be reclassified from equity to profit or loss as a reclassification adjustment even though the financial asset has not been derecognized. Impairment losses recognized in profit or loss for an investment in an equity instrument classified as available-for-sale shall not be reversed through profit or loss. If, in a subsequent period, the fair value of a debt instrument classified as available-for-sale increases and the increase can be objectively related to an event occurring after the impairment loss was recognized in profit or loss, the impairment loss shall be reversed, with the amount of the reversal recognized in profit or loss.

## 4. Significant Accounting Polices, Continued

### (7) Property, Plant and Equipment

Property, plant and equipment are initially measured at cost and after initial recognition, are carried at cost less accumulated depreciation and accumulated impairment losses. The cost of property, plant and equipment includes expenditures arising directly from the construction or acquisition of the asset, any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management and the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Subsequent to initial recognition, an item of property, plant and equipment shall be carried at its cost less any accumulated depreciation and any accumulated impairment losses.

Land is not depreciated. Property, plant and equipment, except for land, are depreciated on a straight-line basis over estimated useful lives that appropriately reflect the pattern in which the asset's future economic benefits are expected to be consumed.

A component that is significant compared to the total cost of property, plant and equipment is depreciated over its consolidated useful life.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment and are recognized in profit or loss.

The estimated useful lives for the current and comparative periods are as follows:

| | **Useful lives (years)** |
|---|---|
| Buildings | 8 ~ 30 |
| Structures | 8 ~ 30 |
| Machinery | 2 ~ 30 |
| Ships | 9 |
| Vehicles | 4 |
| Equipment | 4 |
| Tools | 4 |
| Others | 15 |
| Finance lease assets | 24 |

Depreciation methods, useful lives and residual values are reviewed at the end of each reporting date and adjusted, if appropriate. The change is accounted for as a change in an accounting estimate.

## 4. Significant Accounting Polices, Continued

### (8) Intangible Asset

Intangible assets are measured initially at cost and, subsequently, are carried at cost less accumulated amortization and accumulated impairment losses.

Amortization of intangible assets except for goodwill is calculated on a straight-line basis over the estimated useful lives of intangible assets from the date that they are available for use. The residual value of intangible assets is zero. However, mining rights has applied the production method for reflect the form of economic benefits consumption, as there are no foreseeable limits to the periods over which some of other intangible assest are expected to be available for use, this intangible asset is determined as having an indefinite useful life and not amortized.

The estimated useful lives of the Group's intangible assets with finite useful lives are as follows:

| | **Useful lives (years)** |
|---|---|
| Computer software | 4 |
| Copyright, patent right and industrial property | 5 ~ 10 |
| Development costs | 5 |
| Usable and profitable donation assets | 20 |
| Land use right | 10 |
| Others | 20 |

Amortization periods and the amortization methods for intangible assets with finite useful lives are reviewed at the end of each reporting period. The useful lives of intangible assets that are not being amortized are reviewed at the end of each reporting period to determine whether events and circumstances continue to support indefinite useful life assessments for those assets. Changes are accounted for as changes in accounting estimates.

1) Research and development

Expenditures on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, are recognized in profit or loss as incurred. Development expenditures are capitalized only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Group intends to and has sufficient resources to complete development and to use or sell the asset. Other development expenditures are recognized in profit or loss as incurred.

2) Subsequent expenditures

Subsequent expenditures are capitalized only when they increase the future economic benefits embodied in the specific asset to which they relate. All other expenditures, including expenditures on internally generated goodwill and brands, are recognized in profit or loss as incurred.

## 4. Significant Accounting Polices, Continued

### (9) Borrowing Costs

The Group capitalizes borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset as part of the cost of that asset. Other borrowing costs are recognized in expense as incurred. A qualifying asset is an asset that requires a substantial period of time to get ready for its intended use or sale. Financial assets and inventories that are manufactured or otherwise produced over a short period of time are not qualifying assets. Assets that are ready for their intended use or sale when acquired are not qualifying assets.

To the extent that the Group borrows funds specifically for the purpose of obtaining a qualifying asset, the Group determines the amount of borrowing costs eligible for capitalization as the actual borrowing costs incurred on that borrowing during the period less any investment income on the temporary investment of those borrowings. To the extent that the Group borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the Group shall determine the amount of borrowing costs eligible for capitalization by applying a capitalization rate to the expenditures on that asset. The capitalization rate shall be the weighted average of the borrowing costs applicable to the borrowings of the Group that are outstanding during the period, other than borrowings made specifically for the purpose of obtaining a qualifying asset. The amount of borrowing costs that the Group capitalizes during a period shall not exceed the amount of borrowing costs incurred during that period.

### (10) Government Grants

Government grants are not recognized unless there is reasonable assurance that the Group will comply with the grant's conditions and that the grant will be received.

Government grants whose primary condition is that the Group purchase, construct or otherwise acquire long-term assets are deducted in calculating the carrying amount of the asset. The grant is recognized in profit or loss over the life of a depreciable asset as a reduced depreciation expense.

Government grants which are intended to compensate the Group for expenses incurred are recognized as other income (government grants) in profit or loss over the periods in which the Group recognizes the related costs as expenses. Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognized in income or loss in the period in which they become receivable.

### (11) Impairment of Non-financial Assets

The carrying amounts of the Group's non-financial assets, other than assets arising from employee benefits, inventories, deferred tax assets and non-current assets held for sale, are reviewed at the end of the reporting period to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill, irrespective of whether there is any indication of impairment, is tested for impairment annually by comparing their recoverable amount to their carrying amount.

The Group estimates the recoverable amount of an individual asset. If it is impossible to measure the individual recoverable amount of an asset, then the Group estimates the recoverable amount of each cash-generating unit ("CGU"). A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or group of assets. The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. The value in use is estimated by applying a pre-tax discount rate that reflect current market assessments of the time value of money and the risks specific to the asset or CGU for which estimated future cash flows have not been adjusted, to the estimated future cash flows expected to be generated by the asset or CGU.

## 4. Significant Accounting Polices, Continued

### (11) Impairment of Non-financial Assets, Continued

An impairment loss is recognized if the carrying amount of an asset or a CGU exceeds its recoverable amount. Impairment losses are recognized in profit or loss.

Goodwill arising from a business combination is allocated to CGUs or groups of CGUs that are expected to benefit from the synergies of the combination. An impairment losses in respect of CGU are allocated first to reduce the carrying amount of any goodwill allocated to the CGU, and then to reduce the carrying amounts of the other Assets in the CGU on a pro rata basis.

Except for impairment losses in respect of goodwill which are never reversed, an impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

### (12) Leases

The Group classifies and accounts for leases as either a finance or operating lease, depending on the terms. Leases where the Group assumes substantially all of the risks and rewards of ownership are classified as finance leases. All other leases are classified as operating leases.

1) Finance leases

At the commencement of the lease term, the Group recognizes as finance assets and finance liabilities in its consolidated statement of financial position, the lower amount of the fair value of the leased property and the present value of the minimum lease payments, each determined at the inception of the lease. Any initial direct costs are added to the amount recognized as an asset.

Minimum lease payments are apportioned between the finance charge and the reduction of the outstanding liability. The finance charge is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability. Contingent rents are charged as expenses in the periods in which they are incurred.

The depreciable amount of a leased asset is allocated to each accounting period during the period of expected use on a systematic basis consistent with the depreciation policy the lessee adopts for depreciable assets that are owned. If there is no reasonable certainty that the lessee will obtain ownership by the end of the lease term, the asset is fully depreciated over the shorter of the lease term and its useful life. The Group reviews to determine whether the leased asset may be impaired.

2) Operating leases

Leases where the lessor retains a significant portion of the risks and rewards of ownership are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are recognized in profit or loss on a straight-line basis over the period of the lease.

## 4. Significant Accounting Polices, Continued

### (13) Non-derivative Financial Liabilities

The Group classifies non-derivative financial liabilities into financial liabilities at fair value through profit or loss or other financial liabilities in accordance with the substance of the contractual arrangement and the definitions of financial liabilities. The Group recognizes financial liabilities in the consolidated statements of financial position when the Group becomes a party to the contractual provisions of the financial liability.

1) Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading or designated as such upon initial recognition. Subsequent to initial recognition, financial liabilities at fair value through profit or loss are measured at fair value, and changes therein are recognized in profit or loss. Upon initial recognition, transaction costs that are directly attributable to the acquisition are recognized in profit or loss as incurred.

2) Other financial liabilities

Non-derivative financial liabilities other than financial liabilities at fair value through profit or loss are classified as other financial liabilities. At the date of initial recognition, other financial liabilities are measured at fair value minus transaction costs that are directly attributable to the acquisition. Subsequent to initial recognition, other financial liabilities are measured at amortized cost using the effective interest method.

The Group derecognizes financial liabilities when, and only when, the Group's obligations are discharged, cancelled or they expire.

### (14) Employee Benefits

1) Short-term employee benefits

Short-term employee benefits are employee benefits that are due to be settled within 12 months after the end of the period in which the employees render the related service. When an employee has rendered service to the Group during an accounting period, the Group recognizes the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service.

2) Other long-term employee benefits

Other long-term employee benefits include employee benefits that are settled beyond 12 months after the end of the period in which the employees render the related service, and are calculated at the present value of the amount of future benefit that employees have earned in return for their service in the current and prior periods, less the fair value of any related assets. The present value is determined by discounting the expected future cash flows using the interest rate of corporate bonds that have maturity dates approximating the terms of the Group's obligations and that are denominated in the same currency in which the benefits are expected to be paid. Any actuarial gains and losses are recognized in profit or loss in the period in which they arise.

3) Retirement benefits: defined contribution plans

When an employee has rendered service to the Group during a period, the Group recognizes the contribution payable to a defined contribution plan in exchange for that service as a liability (accrued expense), after deducting any contribution already paid. If the contribution already paid exceeds the contribution due for service before the end of the reporting period, the Group recognizes that excess as an asset (prepaid expense) to the extent that the prepayment will lead to a reduction in future payments or a cash refund.

## 4. Significant Accounting Polices, Continued

### (14) Employee Benefits, Continued

4) Retirement benefits: defined benefit plans

The Group's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in the current and prior periods, discounting that amount and deducting the fair value of any plan assets.

The calculation of defined benefit obligations is performed annually by qualified actuary using the projected unit credit method. When the calculation results in a potential asset for the Group, the recognized asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. To calculate the present value of economic benefits, consideration is given to any applicable minimum funding requirements.

Remeasurements of the net defined benefit liability, which comprise actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognized immediately in other comprehensive income. The Group determines the net interest expense (income) on the net defined benefit liability (asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the then-net defined benefit liability (asset), taking into account any changes in the net defined benefit liability (asset) during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognized in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailments is recognized immediately in profit or loss. The Group recognizes gains and losses on the settlement of a defined benefit plan when the settlement occurs.

### (15) Provisions

Provisions are recognized when the Group has a present legal or constructive obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

The risks and uncertainties that inevitably surround many events and circumstances are taken into account in reaching the best estimate of a provision. Where the effect of the time value of money is material, provisions are determined at the present value of the expected future cash flows.

Where some or all of the expenditures required to settle a provision are expected to be reimbursed by another party, the reimbursement shall be recognized when, and only when, it is virtually certain that reimbursement will be received if the entity settles the obligation. The reimbursement shall be treated as a separate asset.

Provisions are reviewed at the end of each reporting period and adjusted to reflect the current best estimates. If it is no longer probable that an outflow of resources embodying economic benefits will be required to settle the obligation, the provision is reversed.

A provision is used only for expenditures for which the provision was originally recognized.

## 4. Significant Accounting Polices, Continued

### (16) Greenhouse Gas Emissions Rights (allowance) and Obligations

With Enforcement of Allocation and Trading of Greenhouse Gas Emissions Allowances, the Group applies the following accounting policies for emissions rights and obligations.

1) Emissions rights
Greenhouse gas emissions rights consist of the allowances received free of charge from the government and the ones purchased. The cost of the emissions rights includes expenditures arising directly from the acquisition and any other costs incurred during normal course of the acquisition.

Emissions rights are held by the Group to fulfill the legal obligation and recorded as intangible assets. To the extent that the portion to be submitted to the government within one year from the end of reporting period, the emissions rights are classified as current assets. Emissions rights recorded as intangible assets are initially measured at cost and substantially remeasured at cost less accumulated impairment losses.

Greenhouse gas emission rights are derecognized on submission to the government or disposal in which the future economic benefits are no longer expected to be probable.

2) Emissions obligations
Emissions obligations are the Group's present legal obligation to submit the emissions allowances to the government and recognized when an outflow of resources is probable and a reliable estimate can be made of the amount of the obligation. Emissions obligations are measured as the sum of the carrying amount of the allocated rights that will be submitted to the government and the best estimate of expenditure required to settle the obligation at the end of the reporting period for any excess emission. Emissions obligations are derecognized on submission to the government.

## 4. Significant Accounting Polices, Continued

### (17) Foreign Currencies

1) Foreign currency transactions

Foreign currency transactions are initially recorded using the spot exchange rate between the functional currency and the foreign currency at the date of the transaction. At the end of each reporting period, foreign currency monetary items are translated using the closing rate. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction. Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined.

Exchange differences arising on the settlement of monetary items or on translating monetary items at rates different from those at which they were translated on initial recognition during the period or in previous financial statement are recognized in profit or loss in the period in which they arise.

2) Foreign operations

If the presentation currency of the Group is different from a foreign operation's functional currency, the financial statements of the foreign operation are translated into the presentation currency using the following methods:

The assets and liabilities of foreign operations, whose functional currency is not the currency of a hyperinflationary economy, are translated to presentation currency at exchange rates at the reporting date. The income and expenses of foreign operations are translated to functional currency at exchange rates at the dates of the transactions. Foreign currency differences are recognized in other comprehensive income.

Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition of that foreign operation is treated as assets and liabilities of the foreign operation. Thus they are expressed in the functional currency of the foreign operation and translated at the closing rate.

When a foreign operation is disposed of, the relevant amount in the translation is transferred to profit or loss as part of the profit or loss on disposal. On the partial disposal of a subsidiary that includes a foreign operation, the relevant proportion of such cumulative amount is reattributed to non-controlling interest. In any other partial disposal of a foreign operation, the relevant proportion is reclassified to profit or loss.

### (18) Share Capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issuance of ordinary shares and share options are recognized as a deduction from equity, net of any tax effects.

### (19) Revenue

Revenue from the sale of goods, rendering of services or use of the Group assets is measured at the fair value of the consideration received or receivable.

1) Goods sold

The Group recognizes electricity sales revenue based on power sold (transferred to the customer) up to the reporting date. To determine the amount of power sold, the Group estimates daily power volumes of electricity. The differences between the current month's estimated amount and actual amount, is adjusted for (trued-up) during the next month period. The Group's power generation rates are determined through Korea Power Exchange.

2) Services

Revenue from services rendered is recognized in profit or loss in proportion to the stage of completion of the transaction at the reporting date. The stage of completion is assessed by reference to surveys of work performed.

## 4. Significant Accounting Polices, Continued

### (20) Finance Income and Finance Costs

Finance income comprises interest income on funds invested (including available-for-sale financial assets), dividend income, gains on the disposal of available-for-sale financial assets, changes in the fair value of financial assets at fair value through profit or loss, and gains on hedging instruments that are recognized in profit or loss. Interest income is recognized as it accrues in profit or loss, using the effective interest method. Dividend income is recognized in profit or loss on the date that the Group's right to receive payment is established, which in the case of quoted securities is the ex-dividend date.

Finance costs comprise interest expense on borrowings, changes in the fair value of financial assets at fair value through profit or loss, impairment losses recognized on financial assets, and losses on hedging instruments that are recognized in profit or loss. Borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are recognized in profit or loss using the effective interest method.

### (21) Income Taxes

Income tax expense comprises current and deferred tax. Current tax and deferred tax are recognized in profit or loss except to the extent that it relates to a business combination, or items recognized directly in equity or in other comprehensive income.

1) Current tax

Current tax is the expected tax payable or receivable on the taxable profit or loss for the year, using tax rates enacted or substantively enacted at the end of the reporting period and any adjustment to tax payable in respect of previous years. The taxable profit is different from the accounting profit for the period since the taxable profit is calculated excluding the temporary differences, which will be taxable or deductible in determining taxable profit (tax loss) of future periods, and non-taxable or non-deductible items from the accounting profit.

2) Deferred tax

Deferred tax is recognized, using the asset-liability method, in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. A deferred tax liability is recognized for all taxable temporary differences. A deferred tax asset is recognized for all deductible temporary differences to the extent that it is probable that taxable profit will be available against which they can be utilized. However, deferred tax is not recognized for the following temporary differences: taxable temporary differences arising on the initial recognition of goodwill, or the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting profit or loss nor taxable income.

The Group recognizes a deferred tax liability for all taxable temporary differences associated with investments in subsidiaries, associates, and interests in joint ventures, except to the extent that the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. The Group recognizes a deferred tax asset for all deductible temporary differences arising from investments in subsidiaries and associates, to the extent that it is probable that the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

## 4. Significant Accounting Polices, Continued

### (21) Income Taxes, Continued

2) Deferred tax, Continued

The carrying amount of a deferred tax asset is reviewed at the end of each reporting period and reduces the carrying amount to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of that deferred tax asset to be utilized.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and deferred tax assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset only if there is a legally enforceable right to offset the related current tax liabilities and assets, and they relate to income taxes levied by the same tax authority and they intend to settle current tax liabilities and assets on a net basis.

### (22) Earnings per share

The Group presents basic earnings (loss) per share data for its ordinary shares. Basic earnings (loss) per share is calculated by dividing the profit or loss attributable to ordinary shareholders of the Group by the weighted average number of ordinary shares outstanding during the period, adjusted for own shares held.

### (23) New Standards and Interpretations Not Yet Adopted

The following new standards, interpretations and amendments to existing standards have been published and are mandatory for the Group for annual periods beginning after January 1, 2015, and the Group has not early adopted them.

Management believes the impact of the amendments on the Group's consolidated financial statements is not significant.

- K-IFRS No. 1109, Financial Instruments
K-IFRS 1109, published in December 2015, replaces the existing guidance in K-IFRS No. 1039, Financial Instruments: Recognition and Measurement. K-IFRS 1109 includes revised guidance on the classification and measurement of financial instruments, a new expected credit loss model for calculating impairment on financial assets, and new general hedge accounting requirements. It also carries forward the guidance on recognition and derecognition of financial instruments from K-IFRS No. 1039. K-IFRS 1109 is effective for annual periods beginning on or after January 1, 2018, with early adoption permitted.

- K-IFRS No. 1115, Revenue from Contracts with Customers
K-IFRS 1115, published in January 2016, establishes a comprehensive framework for determining whether, how much and when revenue is recognized. It replaces existing revenue recognition guidance, including K-IFRS No. 1018, Revenue, K-IFRS No. 1011, Construction Contracts and K-IFRS No. 2113, Customer Loyalty Programmes. K-IFRS 1115 is effective for annual reporting periods beginning on or after January 1, 2018, with early adoption permitted.

## 5. Operating Segments

(1) The Group's segments are classified at the business unit level at which the Group generates separately identifiable revenue and costs, and the related information is reported to the chief operating decision maker for the purpose of resource allocation and assessment of segment performance. The Group's segments, in accordance with K-IFRS 1108, are 'Electric power generation (thermal power)' and 'Other': the 'Other' segment represents the business unit that manages the Group's foreign operations and maintenance services.

Transactions that occur between the two segments are all based on arms-length transactions priced at market prices that would be applicable to an independent third-party. The accounting policies of the reportable segments are the same as the Group's accounting policies described in note 4.

(2) Sales, operating income and loss for the period

(i) For the year ended December 31, 2015

*In millions of won*

| | | Electric power generation | Others | Adjustment | Total |
|---|---|---|---|---|---|
| Sales | ₩ | 4,317,995 | 14,697 | - | 4,332,692 |
| Operating income | | 367,260 | 3,077 | 23 | 370,360 |
| Income tax expense | | 42,970 | 564 | - | 43,534 |
| Profit for the period | | 221,280 | 171 | - | 221,451 |
| Depreciation and amortization | | 526,349 | 748 | - | 527,097 |
| Equity method income | | 90 | - | - | 90 |

(ii) For the year ended December 31, 2014

*In millions of won*

| | | Electric power generation | Others | Adjustment | Total |
|---|---|---|---|---|---|
| Sales | ₩ | 6,209,536 | 34,030 | - | 6,243,566 |
| Operating income | | 133,123 | 5,177 | 31 | 138,331 |
| Income tax expense | | 14,770 | 407 | - | 15,177 |
| Profit for the period | | 60,125 | 3,918 | - | 64,043 |
| Depreciation and amortization | | 484,200 | 455 | - | 484,655 |
| Equity method loss | | (5,143) | - | - | (5,143) |

## 5. Operating Segments, Continued

(3) Total assets and total liabilities

(i) As of December 31, 2015

*In millions of won*

| | | Electric power generation | Others | Adjustment | Total |
|---|---|---|---|---|---|
| Total assets | ₩ | 9,231,230 | 29,228 | (2) | 9,260,456 |
| Investments in associates and joint ventures | | 170,317 | - | - | 170,317 |
| Acquisition of non-current assets | | 961,989 | 838 | - | 962,827 |
| Total liabilities | | 5,543,586 | 6,334 | (2) | 5,549,918 |

(ii) As of December 31, 2014

*In millions of won*

| | | Electric power generation | Others | Adjustment | Total |
|---|---|---|---|---|---|
| Total assets | ₩ | 8,692,185 | 32,870 | - | 8,725,055 |
| Investments in associates and joint ventures | | 172,218 | - | - | 172,218 |
| Acquisition of non-current assets | | 1,920,134 | 869 | - | 1,921,003 |
| Total liabilities | | 5,244,209 | 6,071 | - | 5,250,280 |

(4) The Group is engaged in the generation and sales of electricity in the Republic of Korea. Geographical information on revenue from external for the annual periods ended December 31, 2015 and 2014 and non-current assets as of December 31, 2015 and 2014 are as follows:

*In millions of won*

| | | Revenue from external customer | | Non-current assets | |
|---|---|---|---|---|---|
| | | **December 31, 2015** | **December 31, 2014** | **December 31, 2015** | **December 31, 2014** |
| Domestic | ₩ | 4,317,996 | 6,209,536 | 8,351,838 | 7,832,147 |
| Australia | | 4,729 | 4,439 | 14,450 | 14,083 |
| Jordan | | 9,967 | 29,590 | 579 | 656 |
| Chile | | - | - | - | 2,750 |
| Total | ₩ | 4,332,692 | 6,243,565 | 8,366,867 | 7,849,636 |

(5) Information about major customers

For the years ended December 31, 2015 and 2014, the Group recognized revenues of ₩ 4,289,256 million and ₩6,136,509 million, respectively, to KEPCO,which the Group's largest customer.

## 6. Cash and Cash Equivalents

Cash and cash equivalents as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Cash (including demand deposit) | ₩ | 77,615 | 9,819 |
| Cash equivalents | | 104,536 | 1,020 |
| | ₩ | 182,151 | 10,839 |

## 7. Categories of Financial Instruments

(1) Financial assets

Categories of financial assets as of December 31, 2015 and 2014 are as follows:

(i) As of December 31, 2015

| *In millions of won* | | Financial assets at fair value through profit or loss | Loans and receivables | Available-for-sale financial assets | Derivatives using hedge accounting | Total |
|---|---|---|---|---|---|---|
| Current financial assets: | | | | | | |
| Cash and cash equivalents | ₩ | - | 182,151 | - | - | 182,151 |
| Current financial assets | | | | | | |
| Short-term financial instruments | | - | 20,000 | - | - | 20,000 |
| Derivative assets | | 32 | - | - | - | 32 |
| Loans | | - | 764 | - | - | 764 |
| Trade and other receivables, net | | - | 442,489 | - | - | 442,489 |
| | | 32 | 645,404 | - | - | 645,436 |
| Non-current financial assets: | | | | | | |
| Non-current financial assets | | | | | | |
| Available-for-sale financial assets | | - | - | 16,620 | - | 16,620 |
| Derivative assets | | - | - | - | 29,275 | 29,275 |
| Loans | | - | 12,435 | - | - | 12,435 |
| Non-current trade and other receivables, net | | - | 11,147 | - | - | 11,147 |
| | | - | 23,582 | 16,620 | 29,275 | 69,477 |
| | ₩ | 32 | 668,986 | 16,620 | 29,275 | 714,913 |

## 7. Categories of Financial Instruments, Continued

(1) Financial assets, Continued

Categories of financial assets as of December 31, 2015 and 2014 are as follows:

(ii) As of December 31, 2014

| *In millions of won* | | Financial assets at fair value through profit or loss | Loans and receivables | Available-for-sale financial assets | Derivatives using hedge accounting | Total |
|---|---|---|---|---|---|---|
| Current financial assets: | | | | | | |
| Cash and cash equivalents | ₩ | - | 10,839 | - | - | 10,839 |
| Current financial assets | | | | | | |
| Loans | | - | 1,111 | - | - | 1,111 |
| Derivative assets | | 88 | - | - | - | 88 |
| Trade and other receivables, net | | - | 572,631 | - | - | 572,631 |
| | | 88 | 584,581 | - | - | 584,669 |
| Non-current financial assets: | | | | | | |
| Non-current financial assets | | | | | | |
| Available-for-sale financial assets | | - | - | 28,684 | - | 28,684 |
| Loans | | - | 10,524 | - | - | 10,524 |
| Derivative assets | | - | - | - | 84 | 84 |
| Non-current trade and other receivables, net | | - | 16,959 | - | - | 16,959 |
| | | - | 27,483 | 28,684 | 84 | 56,251 |
| | ₩ | 88 | 612,064 | 28,684 | 84 | 640,920 |

## 7. Categories of Financial Instruments, Continued

(2) Financial liabilities

Categories of financial liabilities as of December 31, 2015 and 2014 are as follows:

(i) As of December 31, 2015

| *In millions of won* | | Financial liabilities at fair value through profit or loss | Financial liabilities measured at amortized cost | Total |
|---|---|---|---|---|
| Current financial liabilities: | | | | |
| Trade and other payables | | - | 336,097 | 336,097 |
| Current financial liabilities | | | | |
| Borrowings | ₩ | - | 566 | 566 |
| Debentures | | - | 479,722 | 479,722 |
| Derivative liabilities | | 166 | - | 166 |
| | | 166 | 816,385 | 816,551 |
| Non-current financial liabilities: | | | | |
| Trade and other payables | | - | 24,453 | 24,453 |
| Non-current financial liabilities | | | | |
| Borrowings | | - | 3,801 | 3,801 |
| Debentures | | - | 4,249,733 | 4,249,733 |
| | | - | 4,277,987 | 4,277,987 |
| | ₩ | 166 | 5,094,372 | 5,094,538 |

(ii) As of December 31, 2014

| *In millions of won* | | Financial liabilities at fair value through profit or loss | Financial liabilities measured at amortized cost | Derivatives using hedge accounting | Total |
|---|---|---|---|---|---|
| Current financial liabilities: | | | | | |
| Trade and other payables | | - | 576,122 | - | 576,122 |
| Current financial liabilities | | | | | |
| Borrowings | ₩ | - | 13,153 | - | 13,153 |
| Debentures | | - | 99,953 | - | 99,953 |
| Derivative liabilities | | 6 | - | - | 6 |
| | | 6 | 689,228 | - | 689,234 |
| Non-current financial liabilities: | | | | | |
| Trade and other payables | | - | 24,474 | - | 24,474 |
| Non-current financial liabilities | | | | | |
| Borrowings | | - | 3,367 | - | 3,367 |
| Debentures | | - | 4,119,306 | - | 4,119,306 |
| Derivative liabilities | | - | - | 3,031 | 3,031 |
| | | - | 4,147,147 | 3,031 | 4,150,178 |
| | ₩ | 6 | 4,836,375 | 3,031 | 4,839,412 |

## 7. Categories of Financial Instruments, Continued

(3) Finance income and costs

Finance income and costs on each category of financial instruments for the years ended December 31, 2015 and 2014 are as follows:

*In millions of won*

| Type | Description | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Cash and cash equivalents | Interest income | ₩ 2,569 | 3,520 |
| | Gain (loss) on foreign currency transaction and translation, net | (93) | - |
| Available-for-sale financial assets | Interest income | - | 382 |
| | Loss on disposal | (60) | (594) |
| | Impairment | (12,989) | (5,551) |
| | Net change in the unrealized fair value of available-for-sale financial assets before tax | 664 | 158 |
| Loans | Interest income | 625 | 800 |
| Trade and other receivables | Interest income | 1,056 | 1,283 |
| | Gain (loss) on foreign currency transaction and translation, net | 137 | (368) |
| Financial assets at FVTPL | Gain (loss) on valuation of derivative instruments, net | 32 | 88 |
| | Gain (loss) on transactions of derivative instruments, net | 6,043 | - |
| Derivatives using hedge accounting (assets) | Gain (loss) on valuation of derivative instruments, net(profit or loss) | 29,120 | 1,510 |
| | Gain (loss) on transactions of derivative instruments, net(equity, before tax) | 3,101 | - |
| Financial liabilities recorded at amortized cost | Gain (loss) on foreign currency transaction and translation, net | (32,153) | (20,162) |
| | Interest expense of borrowings and debentures | (48,992) | (56,658) |
| | Other interest expense | (3,999) | (3,853) |
| Financial liabilities at FVTPL | Gain (loss) on valuation of derivative instruments, net | (166) | (5) |
| | Gain (loss) on transactions of derivative instruments, net | (3,449) | - |
| Derivatives using hedge accounting (liabilities) | Gain (loss) on valuation of derivative instruments, net(profit or loss) | - | 13,170 |
| | Gain (loss) on valuation of derivative instruments, net(equity, before tax) | - | (11,061) |
| | Gain (loss) on transactions of derivative instruments, net | - | (3,510) |

## 8. Trade and Other Receivables

(1) Trade and other receivables as of December 31, 2015 and 2014 are as follows:

(i) As of December 31, 2015

| *In millions of won* | | Gross receivables | Allowance for doubtful accounts | Present value discount and other | Book value |
|---|---|---|---|---|---|
| Current assets: | | | | | |
| Trade receivables | ₩ | 331,818 | - | - | 331,818 |
| Other receivables | | 110,821 | - | (150) | 110,671 |
| | | 442,639 | - | (150) | 442,489 |
| Non-current assets: | | | | | |
| Other receivables | | 11,292 | - | (145) | 11,147 |
| | ₩ | 453,931 | - | (295) | 453,636 |

(ii) As of December 31, 2014

| *In millions of won* | | Gross receivables | Allowance for doubtful accounts | Present value discount and other | Book value |
|---|---|---|---|---|---|
| Current assets: | | | | | |
| Trade receivables | ₩ | 487,382 | - | - | 487,382 |
| Other receivables | | 85,342 | - | (93) | 85,249 |
| | | 572,724 | - | (93) | 572,631 |
| Non-current assets: | | | | | |
| Other receivables | | 17,426 | - | (467) | 16,959 |
| | ₩ | 590,150 | - | (560) | 589,590 |

(2) Details of other receivables as of December 31, 2015 and 2014 are as follows:

(i) As of December 31, 2015

| *In millions of won* | | Gross receivables | Allowance for doubtful accounts | Present value discount and other | Book value |
|---|---|---|---|---|---|
| Current assets: | | | | | |
| Non-trade receivables | ₩ | 5,614 | - | - | 5,614 |
| Accrued income | | 91,842 | - | - | 91,842 |
| Guarantee | | 12,634 | - | (150) | 12,484 |
| Financial lease receivables | | 731 | - | - | 731 |
| | | 110,821 | - | (150) | 110,671 |
| Non-current assets: | | | | | |
| Guarantee | | 10,178 | - | (145) | 10,033 |
| Financial lease receivables | | 1,114 | - | - | 1,114 |
| | | 11,292 | - | (145) | 11,147 |
| | ₩ | 122,113 | - | (295) | 121,818 |

## 8. Trade and Other Receivables, Continued

(2) Details of other receivables as of December 31, 2015 and 2014 are as follows, Continued:

(ii) As of December 31, 2014

| *In millions of won* | | Gross receivables | Allowance for doubtful accounts | Present value discount and other | Book value |
|---|---|---|---|---|---|
| Current assets: | | | | | |
| Non-trade receivables | ₩ | 15,797 | - | - | 15,797 |
| Accrued income | | 61,308 | - | - | 61,308 |
| Guarantee | | 7,727 | - | (93) | 7,634 |
| Financial lease receivables | | 510 | - | - | 510 |
| | | 85,342 | - | (93) | 85,249 |
| Non-current assets: | | | | | |
| Guarantee | | 16,018 | - | (467) | 15,551 |
| Financial lease receivables | | 1,408 | - | - | 1,408 |
| | | 17,426 | - | (467) | 16,959 |
| | ₩ | 102,768 | - | (560) | 102,208 |

For electricity sales revenue, the average trade receivable turnover is 25 business days from the date of the revenues generated. Interest is charged on trade receivable after 25 business days from invoice date based on interest rate of overdue open market loan.

(3) There are no trade and other receivables which are overdue or impaired as of December 31, 2015 and 2014.

## 9. Available-for-Sale Financial Assets

(1) Changes in Available-for-sale financial assets for the years ended December 31, 2015 and 2014 are as follows:

(i) For the year ended December 31, 2015

*In millions of won*

| | | Beginning balance | Acquisition | Disposal | Valuation | Impairment | Ending Balance |
|---|---|---|---|---|---|---|---|
| Listed equity securities | ₩ | - | - | - | - | - | - |
| Unlisted equity securities | | 28,684 | 393 | (132) | 664 | (12,989) | 16,620 |
| Debt securities | | - | - | - | - | - | - |
| | ₩ | 28,684 | 393 | (132) | 664 | (12,989) | 16,620 |
| Short-term Available-for-sale financial assets | ₩ | - | - | - | - | - | - |
| Long-term Available-for-sale financial assets | | 28,684 | 393 | (132) | 664 | (12,989) | 16,620 |

## 9. Available-for-Sale Financial Assets, Continued

(1) Changes in Available-for-sale financial assets for the years ended December 31, 2015 and 2014 are as follows, Continued:

(ii) For the year ended December 31, 2014

*In millions of won*

| | | Beginning balance | Disposal | Valuation | Impairment | Ending Balance |
|---|---|---|---|---|---|---|
| Listed equity securities | ₩ | - | - | - | - | - |
| Unlisted equity securities | | 35,577 | (1,500) | 158 | (5,551) | 28,684 |
| Debt securities | | 5,512 | (5,512) | - | - | - |
| | ₩ | 41,089 | (7,012) | 158 | (5,551) | 28,684 |
| Short-term Available-for-sale financial assets | ₩ | - | - | - | - | - |
| Long-term Available-for-sale financial assets | | 41,089 | (7,012) | 158 | (5,551) | 28,684 |

(2) Available-for-sale financial assets as of December 31, 2015 and 2014 are as follows:

(i) As of December 31, 2015

| *In millions of won except share information and ownership* | Shares | Ownership (%) | | Acquisition cost | Book value | Fair value |
|---|---|---|---|---|---|---|
| Unlisted securities: | | | | | | |
| Korea Power Exchange (*1) | - | 7.14 | ₩ | 9,131 | 12,811 | 12,811 |
| KEPCO-Uhde inc. (*2) | 103,230 | 3.00 | | 516 | 516 | 516 |
| PT. Kedap Sayaaq(*2) | 671 | 10.00 | | 18,540 | - | - |
| DS POWER Co., Ltd. (*2) | 580,000 | 2.34 | | 2,900 | 2,900 | 2,900 |
| HeeMang Sunlight Power Co.,Ltd. (*2) | 78,600 | 8.33 | | 393 | 393 | 393 |
| | | | ₩ | 31,480 | 16,620 | 16,620 |

(*1) The fair value of unquoted available-for-sale financial assets is calculated using the valuation results in which weighted average borrowing rates of interest of evaluated companies are used as a discount rate.

(*2) Book and fair values of unlisted equity securities held by the Group were measured at cost as a quoted market price does not exist in an active market and its fair value cannot be measured reliably.

## 9. Available-for-Sale Financial Assets, Continued

(2) Available-for-sale financial assets as of December 31, 2015 and 2014 are as follows, Continued:

(ii) As of December 31, 2014

| *In millions of won except share information and ownership* | Shares | Ownership (%) | | Acquisition cost | Book value | Fair value |
|---|---|---|---|---|---|---|
| Unlisted securities: | | | | | | |
| Korea Power Exchange (*1) | - | 7.14 | ₩ | 9,131 | 12,147 | 12,147 |
| Hanhwa power venture fund(*1) | 132 | 1.2 | | 132 | 132 | 132 |
| KEPCO-Uhde inc. (*2) | 103,230 | 3.00 | | 516 | 516 | 516 |
| PT. Kedap Sayaaq(*2) | 671 | 10.00 | | 18,540 | 12,989 | 12,989 |
| DS POWER Co., Ltd. (*2) | 580,000 | 2.34 | | 2,900 | 2,900 | 2,900 |
| | | | ₩ | 31,219 | 28,684 | 28,684 |

(*1) The fair value of unquoted available-for-sale financial assets is calculated using the valuation results in which weighted average borrowing rates of interest of evaluated companies are used as a discount rate.

(*2) Book and fair values of unlisted equity securities held by the Group were measured at cost as a quoted market price does not exist in an active market and its fair value cannot be measured reliably.

## 10. Derivatives

(1) Derivatives as of December 31, 2015 and December 31, 2014 are as follows:

| *In millions of won* | | **December 31, 2015** | | **December 31, 2014** | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Derivative Assets: | | | | | |
| Currency forward | ₩ | 32 | - | 88 | - |
| Currency swap | | - | 29,275 | - | 84 |
| | ₩ | 32 | 29,275 | 88 | 84 |
| Derivative Liabilities: | | | | | |
| Currency forward | | 166 | - | 6 | - |
| Currency swap | | - | - | - | 3,031 |
| | ₩ | 166 | - | 6 | 3,031 |

## 10. Derivatives, Continued

(2) Currency swap contracts as of December 31, 2015 are as follows:

| *In millions of won, In thousands of USD* | | | Contract amounts | | Contract interest rate | | |
|---|---|---|---|---|---|---|---|
| Type | Counterparty | Period | Pay (KRW) | Receive (USD) | Pay (%) | Receive (%) | Contract currency |
| CF Hedge | Barclays Bank PLC | 2013.02.05~2018.02.05 | 81,187 | 75,000 | 2.65 | 1.88 | 1,082.50 |
| | Credit Agricole | 2013.02.05~2018.02.05 | 81,187 | 75,000 | 2.65 | 1.88 | 1,082.50 |
| | Deutsche Bank AG | 2013.02.05~2018.02.05 | 81,187 | 75,000 | 2.65 | 1.88 | 1,082.50 |
| | Citibank Korea Inc. | 2013.02.05~2018.02.05 | 81,187 | 75,000 | 2.65 | 1.88 | 1,082.50 |
| | Credit Agricole | 2014.01.28~2017.01.28 | 54,205 | 50,000 | 2.93 | 3M Libor+1.05 | 1,084.10 |
| | Standard Chartered Bank Korea Limited | 2014.01.28~2017.01.28 | 54,205 | 50,000 | 2.93 | 3M Libor+1.05 | 1,084.10 |

(3) Currency forward contracts as of December 31, 2015 are as follows:

| *In millions of won, In thousands of USD* | | | | Contract amounts | | |
|---|---|---|---|---|---|---|
| Type | Counterparty | Contract date | Maturity date | Pay (KRW) | Receive (USD) | Contract currency |
| Trading | The Hongkong and Shanghai Banking Corporation Limited | 2015.12.16 | 2016.01.04 | 3,654 | 3,100 | 1,178.77 |
| | Nonghyup Bank | 2015.12.16 | 2016.01.06 | 5,885 | 5,000 | 1,176.92 |
| | KEB Hana Bank | 2015.12.18 | 2016.01.06 | 7,462 | 6,300 | 1,184.37 |
| | The Bank of Nova Scotia | 2015.12.21 | 2016.01.06 | 1,179 | 1,000 | 1,178.50 |
| | The Bank of Nova Scotia | 2015.12.22 | 2016.01.06 | 6,470 | 5,500 | 1,176.36 |
| | Standard Chartered Bank Korea Limited | 2015.12.23 | 2016.01.06 | 10,316 | 8,800 | 1,172.31 |
| | The Bank of Nova Scotia | 2015.12.30 | 2016.01.08 | 7,627 | 6,500 | 1,173.45 |
| | The Bank of Nova Scotia | 2015.12.28 | 2016.01.04 | 466 | 400 | 1,165.76 |
| | The Bank of Nova Scotia | 2015.12.29 | 2016.01.08 | 7,706 | 6,600 | 1,167.55 |

(4) The gain(loss) on valuation and transaction of derivatives for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | Net income effect of valuation gain (loss) | | Net income effect of transaction gain (loss) | | Accumulated other comprehensive income(loss) | |
|---|---|---|---|---|---|---|---|
| Type | | **December 31, 2015** | **December 31, 2014** | **December 31, 2015** | **December 31, 2014** | **December 31, 2015** | **December 31, 2014** |
| Currency forward | ₩ | (134) | 83 | 2,594 | - | - | - |
| Currency swap(*) | | 29,120 | 14,680 | - | (3,510) | 3,101 | (11,061) |
| | ₩ | 28,986 | 14,763 | 2,594 | (3,510) | 3,101 | (11,061) |

(*) The loss on valuation of derivative instruments using cash flow hedge accounting is reogognized as accumulated other comprehensive gain amounting to ₩ 3,347 million, net of tax as of December 31, 2015.

## 11. Loans

Loans as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | | December 31, 2014 | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Student loans(*1) | ₩ | 828 | 11,504 | 1,186 | 10,010 |
| Present value discount account | | (64) | (249) | (75) | (666) |
| | | 764 | 11,255 | 1,111 | 9,344 |
| Mortgage loans(*2) | | - | 1,180 | - | 1,180 |
| | ₩ | 764 | 12,435 | 1,111 | 10,524 |

(*1) The Group provides loans to employees without interest for the purpose of educational expenses for their children. The loans are paid back from appropriate portions of quaterage bonuses.
(*2) The Group provides housing loans to employees for their relocation. The loans have a 4-year maturity and are to be repaid in full on that date.

## 12. Short-term financial instruments

Short-term financial instruments as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | | December 31, 2014 | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| CP | ₩ | 20,000 | - | - | - |

## 13. Inventories

Inventories as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | | | December 31, 2014 | | |
|---|---|---|---|---|---|---|---|
| | | Acquisition cost | Allowance for valuation | Book Value | Acquisition cost | Allowance for valuation | Book Value |
| Materials | ₩ | 56,487 | - | 56,487 | 77,846 | - | 77,846 |
| Supplies | | 38,319 | - | 38,319 | 34,088 | - | 34,088 |
| Goods to arrive | | 47,365 | - | 47,365 | 61,852 | - | 61,852 |
| Others | | 2,689 | - | 2,689 | 1,936 | - | 1,936 |
| | ₩ | 144,860 | - | 144,860 | 175,722 | - | 175,722 |

## 14. Financial Lease Receivables

(1) Lease contracts

The Group provides finance lease of machinery and equipment. Lease payments are displayed in all won, lease term is 7 years.

(2) Financial lease receivables as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | | December 31, 2014 | |
|---|---|---|---|---|---|
| | | Minimum lease Payment | Present Value of minimum lease payments | Minimum lease Payment | Present Value of minimum lease payments |
| Less than 1 year | ₩ | 735 | 731 | 514 | 510 |
| 1 ~ 5 years | | 1,183 | 1,114 | 1,402 | 1,309 |
| More than 5 years | | - | - | 111 | 99 |
| | ₩ | 1,918 | 1,845 | 2,027 | 1,918 |

(3) There are no financial lease receivables which are overdue or impaired as of December 31, 2015.

## 15. Non-financial Assets

Non-financial assets as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | | December 31, 2014 | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Advanced payments | ₩ | 7,277 | 10,646 | 4,687 | 11,732 |
| Prepaid expenses | | 22,934 | 693 | 21,760 | 1,230 |
| Others | | 3,605 | 2,362 | 32,330 | 1,561 |
| | ₩ | 33,816 | 13,701 | 58,777 | 14,523 |

## 16. Investments in Subsidiaries

(1) Investments in subsidiaries as of December 31, 2015 and 2014 are as follows:

| Company | Key operating activities | Location | Rate of ownership or voting right | |
|---|---|---|---|---|
| | | | **December 31, 2015** | **December 31, 2014** |
| KOSPO Australia Pty., Ltd. | Mining investment | Australia | 100% | 100% |
| KOSPO-Jordan LLC. | Power generation | Jordan | 100% | 100% |
| KOSPO Chile SpA | Foreign investment | Chile | 100% | 100% |
| KOSPO Youngnam Power Co., Ltd | Power generation | Republic of Korea | 50.00% | - |

## 16. Investments in Subsidiaries, Continued

(2) Change in investments in subsidiaries for the year ended December 31, 2015 is as follows :

| Company | Reason |
|---|---|
| KOSPO Youngnam Power Co., Ltd | Newly established and acquisition for the year ended December 31, 2015. The Company holds 50% plus one of the equity shares and can appoint more than half of director to the board of directors of the entity by shareholders agreement So it is recognized as a subsidiary. |

(3) Summarized financial information of investments in subsidiaries as of December 31, 2015 and 2014 are as follows:

(i) As of December 31, 2015

*In millions of won*

| Company | | Assets | Liabilities | Sales | Net profit or loss |
|---|---|---|---|---|---|
| KOSPO Australia Pty., Ltd. | ₩ | 17,692 | 1,584 | 4,729 | (1,016) |
| KOSPO-Jordan LLC. | | 12,414 | 1,117 | 9,967 | 2,129 |
| KOSPO Chile SpA | | 133 | 4,642 | - | (942) |
| KOSPO Youngnam Power Co., Ltd | | 82,102 | 32,100 | - | 3 |

(ii) As of December 31, 2014

*In millions of won*

| Company | | Assets | Liabilities | Sales | Net profit or loss |
|---|---|---|---|---|---|
| KOSPO Australia Pty., Ltd. | ₩ | 18,964 | 913 | 4,439 | 2,007 |
| KOSPO-Jordan LLC. | | 10,270 | 1,742 | 29,590 | 2,504 |
| KOSPO Chile SpA | | 3,143 | 4,354 | - | (1,640) |

(4) Significant restrictions on its abilites to subsidiary is as follows:

| Company | Nature and extent of any significant restrictions |
|---|---|
| KOSPO Youngnam Power Co., Ltd | Principals on subordinated dividends can only be paid to shareholders when all conditions of a loan agreement are satisfied or the prior written consent of a financial institution is obtained. And without prior written consent of a financial institution, it is not allowed transfer all or part of the shares which holds. |

## 16. Investments in Subsidiaries, Continued

(5) Details of non-controlling interest for the year ended December 31, 2015 is as follows:

*In millions of won except ownership of non-controlling interests*

| | | KOSPO Youngnam Power Co., Ltd |
|---|---|---|
| Current assets | ₩ | 49,419 |
| Non-current assets | | 32,683 |
| Current liabilities | | 31,100 |
| Non-current liabilities | | 1,000 |
| Net assets | | 50,002 |
| Ownership of non-controlling interest | | 50% |
| Book value of non-controlling interest | | 25,001 |
| | | |
| Sales | | - |
| Profit for the period | | 3 |
| Ownership of non-controlling interest | | 50% |
| Profit attributable to Non-controlling interests | | 1 |
| | | |
| Cash flows from operating activities | | (3,817) |
| Cash flows from investing activities | | (1,744) |
| Cash flows from financing activities | | 51,000 |
| Net increase in cash and cash equivalents | | 45,439 |

## 17. Investments in Associates and Joint Ventures

(1) Investments in associates and joint ventures as of December 31, 2015 and 2014 are as follows:

| Company | Major operation | Location | Ownership or voting right | |
|---|---|---|---|---|
| | | | **December 31, 2015** | **December 31, 2014** |
| Associates | | | | |
| Daegu Green Power Co., Ltd. | Power generation | Republic of Korea | 47.8% | 47.8% |
| Taebaek Wind power Co., Ltd. | Power generation | Republic of Korea | 25.0% | 25.0% |
| Muju Wind power Co., Ltd. | Power generation | Republic of Korea | 25.0% | 25.0% |
| PyeongChang Wind Power Co., Ltd. | Power generation | Republic of Korea | 25.0% | 25.0% |
| Jinan Jangsu Wind Power Co., Ltd. | Power generation | Republic of Korea | 25.0% | 25.0% |
| Daeryun Power Co., Ltd. (*1) | Power generation | Republic of Korea | 19.5% | 19.8% |
| Changjuk Wind Power Co., Ltd. | Power generation | Republic of Korea | 30.0% | 30.0% |
| KNH Solar Co., Ltd. | Power generation | Republic of Korea | 27.0% | 27.0% |
| Busan Solar Co., Ltd. (*1) | Power generation | Republic of Korea | 19.8% | 19.8% |
| Korea Offshore Wind Power Co.,Ltd. (*2) | Power generation | Republic of Korea | 12.5% | 12.5% |
| Hadong Mineral Fiber Co., Ltd. | Recycling fly ashes | Republic of Korea | 25.0% | 25.0% |
| Jeongam Wind Power Co., Ltd. | Power generation | Republic of Korea | 40.0% | 40.0% |
| Korea Power Engineering Service Co., Ltd. | Construction | Republic of Korea | 29.0% | 29.0% |
| KS Solar Co., Ltd. (*1) | Power generation | Republic of Korea | 19.0% | 19.0% |
| Naepo Green Energy Co., Ltd | Power generation | Republic of Korea | 25.0% | 25.0% |
| Samcheok Eco Materials Co., Ltd (*3) | Recycling fly ashes | Republic of Korea | 2.7% | 2.7% |
| Joint ventures | | | | |
| Daejung Offshore Wind Power Co., Ltd. | Power generation | Republic of Korea | 49.9% | 49.9% |
| Kelar S.A.(*4) | Power generation | Chile | 65.0% | 65.0% |

(*1) The Group holds less than 20% of the equity shares of Daeryun Power Co., Ltd., Busan Solar Co., Ltd., and KS Solar Co., Ltd., However, the Group can exercise significant influence by virtue of its contractual right to appoint a director to the board of directors of the entity.

(*2) The Group holds less than 20% of the equity shares of Korea Offshore Wind Power Co., Ltd.. However, with the sum of ownership of an associated entity in the Group, the Group holds more than 20% of the equity shares of the entity and exercises significant influence.

(*3) The Group's effective percentage of ownership except the redeemable convertible preferred stock shares is 25.5%.

(*4) The Group holds more than 50% of the equity shares of the entity. However, according to the shareholders' agreement, all critical financial and operating decisions must be agreed to by all ownership parties. For these reasons, the entities are classified as joint ventures.

## 17. Investments in Associates and Joint Ventures, Continued

(2) Changes in investments in associates and joint ventures for the years ended December 31, 2015 and 2014 are as follows:

(i) For the year ended December 31, 2015

*In millions of won*

| Company | | Beginning balance | Acquisi-tions | Equity profit (loss) | Changes in equity | Others | Ending balance |
|---|---|---|---|---|---|---|---|
| Associates | | | | | | | |
| Daegu Green Power Co., Ltd. | ₩ | 71,387 | - | 8,903 | - | (23) | 80,267 |
| Taebaek Wind Power Co., Ltd. | | 5,524 | - | (568) | - | - | 4,956 |
| Muju Wind Power Co., Ltd. | | 2,706 | - | (119) | - | - | 2,587 |
| PyeongChang Wind Power Co., Ltd. | | 3,693 | - | (291) | - | - | 3,402 |
| Jinan Jangsu Wind Power Co., Ltd. | | 77 | - | - | - | - | 77 |
| Daeryun Power Co., Ltd. | | 41,952 | - | (5,799) | - | 3 | 36,156 |
| Changjuk Wind Power Co., Ltd. | | 6,486 | - | (343) | - | - | 6,143 |
| KNH Solar Co., Ltd. | | 1,744 | - | 177 | 3 | - | 1,924 |
| Busan Solar Co., Ltd. | | 853 | - | 72 | - | - | 925 |
| Korea Offshore Wind Power Co., Ltd. | | 1,304 | - | (646) | - | - | 658 |
| Hadong Mineral Fiber Co., Ltd. | | 3 | - | (3) | - | - | - |
| Jeongam Wind Power Co., Ltd. | | 93 | 880 | (271) | - | - | 702 |
| Korea Power Engineering Service Co., Ltd. | | 1,334 | - | 540 | - | (69) | 1,805 |
| KS Solar Co., Ltd. | | 325 | - | 293 | - | - | 618 |
| Naepo Green Energy Co., Ltd | | 28,064 | - | (1,319) | - | - | 26,745 |
| Samcheok Eco Materials Co., Ltd | | 212 | - | (177) | (35) | - | - |
| Joint ventures | | | | | | | |
| Daejung Offshore Wind Power Co., Ltd. | | 3,711 | - | (359) | - | - | 3,352 |
| Kelar S.A. | | 2,750 | - | - | (2,628) | (122) | - |
| | ₩ | 172,218 | 880 | 90 | (2,660) | (211) | 170,317 |

## 17. Investments in Associates and Joint Ventures, Continued

(2) Changes in investments in associates and joint ventures for the years ended December 31, 2015 and 2014 are as follows, continued:

(ii) For the year ended December 31, 2014

*In millions of won*

| Company | | Beginning balance | Acquisi-tions | Disposals | Equity profit (loss) | Changes in equity | Others | Ending balance |
|---|---|---|---|---|---|---|---|---|
| Associates | | | | | | | | |
| Daegu Green Power Co., Ltd. | ₩ | 74,878 | - | - | (3,494) | - | 3 | 71,387 |
| Taebaek Wind Power Co., Ltd. | | 5,552 | - | - | 963 | - | (991) | 5,524 |
| Muju Wind Power Co., Ltd. | | 2,707 | - | - | (1) | - | - | 2,706 |
| PyeongChang Wind Power Co., Ltd. | | 600 | 3,238 | - | (128) | (17) | - | 3,693 |
| Jinan Jangsu Wind Power Co., Ltd. | | 77 | - | - | - | - | - | 77 |
| Daeryun Power Co., Ltd. | | 24,599 | 18,645 | - | (1,748) | 2 | 454 | 41,952 |
| Changjuk Wind Power Co., Ltd. | | 6,344 | - | - | 1,434 | - | (1,292) | 6,486 |
| KNH Solar Co., Ltd. | | 1,372 | - | - | 372 | - | - | 1,744 |
| Busan Solar Co., Ltd. | | 741 | - | - | 112 | - | - | 853 |
| Korea Offshore Wind Power Co., Ltd. | | 307 | 1,325 | - | (309) | (19) | - | 1,304 |
| Hadong Mineral Fiber Co., Ltd. | | 3 | - | - | - | - | - | 3 |
| Jeongam Wind Power Co., Ltd. | | 324 | - | - | (231) | - | - | 93 |
| Korea Power Engineering Service Co., Ltd. | | 585 | - | - | 788 | - | (38) | 1,335 |
| KS Solar Co., Ltd. | | 537 | - | - | (202) | (10) | - | 325 |
| Jeonnam Solar Co., Ltd. | | 696 | - | (941) | 241 | 4 | - | - |
| Naepo Green Energy Co., Ltd | | - | 29,200 | - | (995) | (141) | - | 28,064 |
| Samcheok Eco Materials Co., Ltd | | - | 686 | - | (474) | - | - | 212 |
| Joint ventures | | | | | | | | |
| Daejung Offshore Wind Power Co., Ltd. | | 4,135 | - | - | (424) | - | - | 3,711 |
| Kelar S.A. | | 4,180 | - | - | (1,046) | - | (385) | 2,749 |
| | ₩ | 127,637 | 53,094 | (941) | (5,142) | (181) | (2,249) | 172,218 |

## 17. Investments in Associates and Joint Ventures, Continued

(3) Summarized financial information of investments in associates and joint ventures as of December 31, 2015 and 2014 are as follows:

(i) As of December 31, 2015

*In millions of won*

| Company | | Assets | Liabilities | Sales | Net profit or loss |
|---|---|---|---|---|---|
| Associates | | | | | |
| Daegu Green Power Co., Ltd. | ₩ | 639,118 | 471,497 | 321,273 | 18,625 |
| Taebaek Wind Power Co., Ltd. | | 48,009 | 26,212 | 6,626 | (302) |
| Muju Wind Power Co., Ltd. | | 10,349 | - | - | (477) |
| PyeongChang Wind Power Co., Ltd. | | 62,565 | 48,959 | - | (1,164) |
| Jinan Jangsu Wind Power Co., Ltd. | | 306 | - | - | (1) |
| Daeryun Power Co., Ltd. | | 838,199 | 657,551 | 279,787 | (29,806) |
| Changjuk Wind Power Co., Ltd. | | 41,444 | 19,053 | 6,472 | 772 |
| KNH Solar Co., Ltd. | | 27,254 | 20,105 | 4,399 | 861 |
| Busan Solar Co., Ltd. | | 26,059 | 21,367 | 4,267 | 383 |
| Korea Offshore Wind Power Co., Ltd | | 7,579 | 2,317 | - | (4,213) |
| Hadong Mineral Fiber Co., Ltd. | | 2 | 21 | - | (30) |
| Jeongam Wind Power Co., Ltd | | 2,053 | 299 | - | (621) |
| Korea Power Engineering Service Co., Ltd. | | 9,194 | 2,968 | 25,925 | 2,296 |
| KS Solar Co., Ltd. | | 29,745 | 26,469 | 4,667 | 278 |
| Naepo Green Energy Co., Ltd | | 108,167 | 1,184 | 3,126 | (5,274) |
| Samcheok Eco Materials Co., Ltd | | 23,119 | 735 | - | (2,171) |
| Joint Ventures | | | | | |
| Daejung Offshore Wind Power Co., Ltd. | | 6,795 | 78 | - | (606) |
| Kelar S.A. | | 557,987 | 652,254 | - | (60,598) |

(ii) As of December 31, 2014

*In millions of won*

| Company | | Assets | Liabilities | Sales | Net profit or loss |
|---|---|---|---|---|---|
| Associates | | | | | |
| Daegu Green Power Co., Ltd. | ₩ | 666,935 | 517,892 | 43,908 | (7,310) |
| Taebaek Wind Power Co., Ltd. | | 50,776 | 28,677 | 10,362 | 3,856 |
| Muju Wind Power Co., Ltd. | | 10,826 | - | - | (4) |
| PyeongChang Wind Power Co., Ltd. | | 14,772 | 2 | - | (513) |
| Jinan Jangsu Wind Power Co., Ltd. | | 308 | - | - | (1) |
| Daeryun Power Co., Ltd. | | 832,682 | 622,244 | 338,191 | (9,213) |
| Changjuk Wind Power Co., Ltd. | | 42,349 | 20,730 | 10,487 | 4,741 |
| KNH Solar Co., Ltd. | | 28,451 | 21,992 | 4,913 | 1,315 |
| Busan Solar Co., Ltd. | | 27,512 | 23,202 | 4,489 | 579 |
| Korea Offshore Wind Power Co., Ltd | | 11,866 | 1,436 | - | (2,469) |
| Hadong Mineral Fiber Co., Ltd. | | 12 | 2 | - | (1) |
| Jeongam Wind Power Co., Ltd | | 241 | 9 | - | (472) |
| Korea Power Engineering Service Co., Ltd. | | 7,410 | 2,809 | 18,859 | 3,171 |
| KS Solar Co., Ltd. | | 30,937 | 29,225 | 3,465 | (1,149) |
| Naepo Green Energy Co., Ltd | | 118,202 | 5,944 | 1,283 | (3,978) |
| Samcheok Eco Materials Co., Ltd | | 23,831 | - | - | (1,855) |
| Joint Ventures | | | | | |
| Daejung Offshore Wind Power Co., Ltd. | | 7,443 | 6 | - | (849) |
| Kelar S.A. | | 222,068 | 221,210 | - | (1,610) |

## 17. Investments in Associates and Joint Ventures, Continued

(4) Shareholders' agreements on investments in associates and joint ventures that may cause future economic costs or cash outflows are as follows:

| Company | Shareholders' agreements |
|---|---|
| Taebaek Wind Power Co., Ltd. | The Group has the obligation to buy the other shareholders' shares at fair value through a consultation process with all the shareholders involved about timing of acquisition, sizes, etc. by taking financial conditions, business situation and other various circumstances into consideration, in case the other shareholders want to sell their shares after the end of warranty period of the wind power equipment based on the equipment and material supply contract. |
| Pyeongchang Wind Power Co., Ltd. | In case non-controlling shareholders decide to dispose of their shares in Pyeongchang Wind Power Co., Ltd. after commercial operation of the power plant has started, the Group is obligated to acquire those shares at fair value. |
| Jeongam Wind Power Co., Ltd | The Group is obligated to buy the other shareholders' shares at fair value, as each of the other shareholders exercise their put option to sell their shares after completing the construction of a power plant. |
| Daejung Offshore Wind Power Co., Ltd. | The Group has the obligation to buy the shares of Samsung Heavy Industries Co., Ltd., the other shareholder of Daejung Offshore Wind Power Co., Ltd., at fair value by evaluating the reliability and economic feasibility of equipment installed by Samsung Heavy Industries Co., Ltd. after the end of the warranty period of the wind power equipment based on the equipment and material supply contract. |
| Samcheok Eco Materials Co., Ltd | The Group has rights to purchase the shares if the preferred stockholders want to sell on the expected sale date (three years from the issuance date). The Group should guarantee the promised yield when preferred stockholders sell their shares. |

## 17. Investments in Associates and Joint Ventures, Continued

(5) Significant restrictions on associates or joint ventures are as follows:

| Company | Nature and extent of any significant restrictions |
|---|---|
| Daegu Green Power Co., Ltd. | Only if the condition is met with the loan agreement signed by financial institutions, the investors of subordinated credit facility loans can receive payments of principal and interest and dividends. Korea Exchange Bank, the deputy, permits the amount of the payments and dividends. |
| Taebaek Wind Power Co., Ltd. | Financial institutions can reject or defer an approval with regard to the request for fund executions on subordinated loans of shareholders in order to pay senior loans based on the loan agreement. |
| Pyeongchang Wind Power Co., Ltd. | Principals on subordinated loans or dividends can only be paid to shareholders when all conditions of a loan agreement are satisfied or the prior written consent of a financial institution is obtained. |
| Daeryun Power Co., Ltd. | Principals on subordinated loans or dividends can only be paid to shareholders when all conditions of a loan agreement are satisfied or the prior written consent of a financial institution is obtained. |
| Changjuk Wind Power Co., Ltd. | Principals on subordinated loans or dividends can only be paid to shareholders when all conditions of a loan agreement are satisfied or the prior written consent of a financial institution is obtained. |
| KNH Solar Co., Ltd. | Principals on subordinated loans or dividends can only be paid to shareholders when the prior written consent of a financial institution is obtained. |
| Busan Solar Co., Ltd. | Dividends can only be paid to shareholders when the prior written consent of a financial institution is obtained. |
| KS Solar Co., Ltd. | Dividends can only be paid to shareholders when all conditions of a loan agreement are satisfied. |

## 18. Property, Plant and Equipment

(1) Property, plant and equipment as of December 31, 2015 and 2014 are as follows:

(i) As of December 31, 2015

| *In millions of won* | | Acquisition cost | Government grants | Accumulated depreciation | Accumulated impairment loss | Book value |
|---|---|---|---|---|---|---|
| Land | ₩ | 670,864 | - | - | - | 670,864 |
| Buildings | | 1,021,261 | (104) | (397,497) | (853) | 622,807 |
| Structures | | 1,259,003 | - | (446,599) | (1,183) | 811,221 |
| Machinery | | 4,677,854 | (321) | (1,955,430) | (33,841) | 2,688,262 |
| Ships | | 3 | - | (1) | - | 2 |
| Vehicles | | 6,941 | - | (5,203) | - | 1,738 |
| Equipment | | 126,255 | (149) | (79,560) | - | 46,546 |
| Tools | | 17,671 | - | (14,900) | - | 2,771 |
| Others | | 1,410 | - | (282) | - | 1,128 |
| Construction-in-progress | | 3,209,906 | - | - | - | 3,209,906 |
| Finance lease assets | | 168,310 | - | (65,637) | - | 102,673 |
| | ₩ | 11,159,478 | (574) | (2,965,109) | (35,877) | 8,157,918 |

## 18. Property, Plant and Equipment, Continued

(1)Property, plant and equipment as of December 31, 2015 and 2014 are as follows, Continued:

(ii) As of December 31, 2014

| *In millions of won* | | Acquisition cost | Government grants | Accumulated depreciation | Accumulated impairment loss | Book value |
|---|---|---|---|---|---|---|
| Land | ₩ | 644,231 | - | - | - | 644,231 |
| Buildings | | 872,419 | (108) | (361,621) | (853) | 509,837 |
| Structures | | 949,954 | - | (410,383) | (1,183) | 538,388 |
| Machinery | | 4,457,037 | (363) | (1,693,569) | (45,045) | 2,718,060 |
| Ships | | 3 | - | - | - | 3 |
| Vehicles | | 6,255 | - | (4,654) | - | 1,601 |
| Equipment | | 91,094 | (390) | (63,752) | - | 26,952 |
| Tools | | 17,114 | - | (13,969) | - | 3,145 |
| Others | | 1,409 | - | (188) | - | 1,221 |
| Construction-in-progress | | 3,098,816 | - | - | - | 3,098,816 |
| Finance lease assets | | 151,766 | - | (61,099) | - | 90,667 |
| | ₩ | 10,290,098 | (861) | (2,609,235) | (47,081) | 7,632,921 |

(2) Changes in property, plant and equipment for the years ended December 31, 2015 and 2014 are as follows:

(i) For the year ended December 31, 2015

| *In millions of won* | | Beginning balance | Acquisition/ Capital expenditure | Disposal | Depreciation | Others | Ending balance |
|---|---|---|---|---|---|---|---|
| Land | ₩ | 644,231 | - | (3,700) | - | 30,333 | 670,864 |
| Buildings | | 509,945 | 173 | (454) | (39,738) | 152,985 | 622,911 |
| (Government grants) | | (108) | - | - | 4 | - | (104) |
| Structures | | 538,388 | 22 | (370) | (47,012) | 320,193 | 811,221 |
| Machinery | | 2,718,423 | 42,687 | (19,810) | (413,396) | 360,679 | 2,688,583 |
| (Government grants) | | (363) | - | - | 42 | - | (321) |
| Ships | | 3 | - | - | (1) | - | 2 |
| Vehicles | | 1,601 | 8 | - | (651) | 780 | 1,738 |
| Equipment | | 27,342 | 2,019 | 2 | (17,743) | 35,075 | 46,695 |
| (Government grants) | | (390) | - | - | 241 | - | (149) |
| Tools | | 3,145 | 125 | - | (1,544) | 1,045 | 2,771 |
| Others | | 1,221 | - | - | (93) | - | 1,128 |
| Construction-in-progress | | 3,098,816 | 916,628 | (13,178) | - | (792,360) | 3,209,906 |
| Finance lease assets | | 90,667 | - | (230) | (9,111) | 21,347 | 102,673 |
| | ₩ | 7,632,921 | 961,662 | (37,740) | (529,002) | 130,077 | 8,157,918 |

## 18. Property, Plant and Equipment, Continued

(2) Changes in property, plant and equipment for the years ended December 31, 2015 and 2014 are as follows, Continued:

(ii) For the year ended December 31, 2014

| *In millions of won* | | Beginning balance | Acquisition/ Capital expenditure | Disposal | Depreciation | Others | Ending balance |
|---|---|---|---|---|---|---|---|
| Land | ₩ | 641,045 | - | (2,023) | - | 5,209 | 644,231 |
| Buildings | | 487,003 | 89 | (1,407) | (35,201) | 59,461 | 509,945 |
| (Government grants) | | (111) | - | - | 3 | - | (108) |
| Structures | | 540,109 | - | (537) | (40,627) | 39,443 | 538,388 |
| Machinery | | 2,564,608 | 59,146 | (9,285) | (375,965) | 479,919 | 2,718,423 |
| (Government grants) | | (404) | - | - | 41 | - | (363) |
| Ships | | 3 | - | - | - | - | 3 |
| Vehicles | | 2,157 | 79 | (25) | (649) | 39 | 1,601 |
| Equipment | | 33,573 | 2,016 | (2) | (14,279) | 6,034 | 27,342 |
| (Government grants) | | (631) | - | - | 241 | - | (390) |
| Tools | | 3,380 | 346 | - | (2,032) | 1,451 | 3,145 |
| Others | | 1,315 | - | - | (94) | - | 1,221 |
| Construction-in-progress | | 1,810,270 | 1,824,680 | - | - | (536,134) | 3,098,816 |
| Finance lease assets | | 89,900 | - | (219) | (8,198) | 9,184 | 90,667 |
| | ₩ | 6,172,217 | 1,886,356 | (13,498) | (476,760) | 64,606 | 7,632,921 |

## 19. Intangible Assets

(1) Intangible assets as of December 31, 2015 and 2014 are as follows:

(i) As of December 31, 2015

| *In millions of won* | | Acquisition cost | Accumulated depreciation | Accumulated impairment loss | Book value |
|---|---|---|---|---|---|
| Computer software | ₩ | 21,510 | (15,223) | - | 6,287 |
| Copyright, patent right and industrial property | | 71 | (60) | - | 11 |
| Mining right | | 8,620 | (1,424) | - | 7,196 |
| Development costs | | 24,649 | (20,045) | - | 4,604 |
| Usable and profitable donation assets | | 1,469 | (160) | - | 1,309 |
| Land use right | | 79 | (58) | - | 21 |
| Others | | 7,199 | (1,601) | (95) | 5,503 |
| | ₩ | 63,597 | (38,571) | (95) | 24,931 |

## 19. Intangible Assets, Continued

(1) Intangible assets as of December 31, 2015 and December 31, 2014 are as follows, Continued:

(ii) As of December 31, 2014

| *In millions of won* | | Acquisition cost | Accumulated depreciation | Accumulated impairment loss | Book value |
|---|---|---|---|---|---|
| Computer software | ₩ | 18,271 | (11,545) | - | 6,726 |
| Copyright, patent right and industrial property | | 71 | (55) | - | 16 |
| Mining right | | 8,935 | (1,073) | - | 7,862 |
| Development costs | | 23,709 | (15,207) | - | 8,502 |
| Usable and profitable donation assets | | 1,469 | (13) | - | 1,456 |
| Land use right | | 79 | (51) | - | 28 |
| Others | | 6,753 | (1,274) | (95) | 5,384 |
| | ₩ | 59,287 | (29,218) | (95) | 29,974 |

(2) Changes in intangible assets for the years ended December 31, 2015 and 2014 are as follows:

(i) For the year ended December 31, 2015

| *In millions of won* | | Beginning balance | Acquisition/ Capital expenditure | Amortization | Others | Ending balance |
|---|---|---|---|---|---|---|
| Computer software | ₩ | 6,726 | 144 | (3,679) | 3,096 | 6,287 |
| Copyright, patent right and industrial property | | 16 | - | (5) | - | 11 |
| Mining right | | 7,862 | 142 | (405) | (403) | 7,196 |
| Development costs | | 8,502 | - | (4,838) | 940 | 4,604 |
| Usable and profitable donation assets | | 1,456 | - | (147) | - | 1,309 |
| Land use right | | 28 | - | (7) | - | 21 |
| Others | | 5,384 | - | (328) | 447 | 5,503 |
| | ₩ | 29,974 | 286 | (9,409) | 4,080 | 24,931 |

(ii) For the year ended December 31, 2014

| *In millions of won* | | Beginning balance | Acquisition/ Capital expenditure | Amortization | Others | Ending balance |
|---|---|---|---|---|---|---|
| Computer software | ₩ | 5,128 | 16 | (3,038) | 4,620 | 6,726 |
| Copyright, patent right and industrial property | | 23 | - | (7) | - | 16 |
| Mining right | | 8,137 | 183 | (98) | (360) | 7,862 |
| Development costs | | 11,548 | - | (4,425) | 1,379 | 8,502 |
| Usable and profitable donation assets | | - | - | (12) | 1,468 | 1,456 |
| Land use right | | 36 | - | (8) | - | 28 |
| Others | | 5,702 | - | (310) | (8) | 5,384 |
| | ₩ | 30,574 | 199 | (7,898) | 7,099 | 29,974 |

## 19. Intangible Assets, Continued

(3) The key intangible asset as of December 31, 2015 and 2014 are as follows, Continued:

| *In millions of won* | | December 31, 2015 | | December 31, 2014 | |
|---|---|---|---|---|---|
| Contents | | Amount | Residual Amortization Period | Amount | Residual Amortization Period |
| Development costs | ERP system(KEEPS) | ₩ 2,104 | 1.5 years | 5,381 | 2.5 years |

## 20. Trade and Other Payables

Trade and other payables as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | December 31, 2015 | | December 31, 2014 | |
|---|---|---|---|---|
| | Current | Non-current | Current | Non-current |
| Trade payables | ₩ 103,995 | - | 377,613 | - |
| Other payables | 71,991 | 24,453 | 65,974 | 24,474 |
| Accrued expenses | 38,318 | - | 40,876 | - |
| Other deposits | 121,793 | - | 91,659 | - |
| | ₩ 336,097 | 24,453 | 576,122 | 24,474 |

## 21. Loans and Borrowings

(1) Details of borrowings as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Current Liabilities: | | | |
| Short-term borrowings | ₩ | - | 12,587 |
| Current portion of long-term borrowings | | 566 | 566 |
| Current portion of long-term debentures | | 480,000 | 100,000 |
| Less: discount on debentures | | (278) | (47) |
| | | 480,288 | 113,106 |
| Non-current Liabilities: | | | |
| Long-term borrowings | | 3,801 | 3,367 |
| Debentures | | 4,258,800 | 4,129,680 |
| Less: discount on debentures | | (9,067) | (10,374) |
| | | 4,253,534 | 4,122,673 |
| | ₩ | 4,733,822 | 4,235,779 |

(2) Repayment schedule of borrowings and debentures as of December 31, 2014 and 2015 are as follows:

(i) As of December 31, 2015

| *In millions of won* | | Borrowings | Debentures |
|---|---|---|---|
| Less than 1 year | ₩ | 566 | 480,000 |
| 1-5 years | | 1,914 | 2,578,800 |
| More than 5 years | | 1,887 | 1,680,000 |
| | ₩ | 4,367 | 4,738,800 |

## 21. Loans and Borrowings, Continued

(2) Repayment schedule of borrowings and debentures as of December 31, 2014 and 2015 are as follows, Continued:

(ii) As of December 31, 2014

| *In millions of won* | | Borrowings | Debentures |
|---|---|---|---|
| Less than 1 year | ₩ | 13,153 | 100,000 |
| 1-5 years | | 2,114 | 2,329,680 |
| More than 5 years | | 1,253 | 1,800,000 |
| | ₩ | 16,520 | 4,229,680 |

(3) Short-term borrowings as of December 31, 2014 as follows:

*In millions of won, in thousands of usd*

| Type | Lender | Interest rate | | USD | | Won equivalents |
|---|---|---|---|---|---|---|
| Foreign short-term borrowings | Mizuho Bank Ltd. | 0.61% | $ | 3,611 | ₩ | 3,969 |
| | Korea Development Bank. | 0.47% | | 7,840 | | 8,618 |
| | | | $ | 11,451 | ₩ | 12,587 |

(4) Long-term borrowings as of December 31, 2015 and 2014 are as follows:

*In millions of won*

| Lender | Description | Annual interest rate | | Maturity | | **December 31, 2015** | **December 31, 2014** |
|---|---|---|---|---|---|---|---|
| KEB Hana Bank | Energy rationalization | Floating rate | 1.75% | 2019.05.19 | ₩ | 650 | 850 |
| Korea Resources Corporation | Foreign operation | Floating rate | 0.75% | 2023.03.15 | | 2,171 | 2,470 |
| Korea Resources Corporation | Foreign operation | Floating rate | 0.75% | 2023.06.15 | | 84 | 95 |
| Korea Resources Corporation | Foreign operation | Floating rate | 0.75% | 2023.12.15 | | 217 | 244 |
| Korea Resources Corporation | Foreign operation | Floating rate | 0.75% | 2024.06.15 | | 63 | 71 |
| Korea Resources Corporation | Foreign operation | Floating rate | 0.75% | 2024.09.15 | | 182 | 203 |
| Shinhan BNP Paribas ITMC Co.,Ltd. | Subordinated loans | Fixed rate | 8.00% | 2036.03.29 | | 1,000 | - |
| | | | | | | 4,367 | 3,933 |
| | | | | Less: current portion | | (566) | (566) |
| | | | | | ₩ | 3,801 | 3,367 |

## 21. Loans and Borrowings, Continued

(5) Domestic debentures as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | Issue date | Maturity date | Annual interest rate | | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|---|---|---|---|
| Corporate bond #14 | 2010.03.17 | 2015.03.17 | Fixed rate | 4.62% | ₩ | - | 100,000 |
| Corporate bond #16-2 | 2011.04.19 | 2016.04.19 | Fixed rate | 4.31% | | 110,000 | 110,000 |
| Corporate bond #17-1 | 2011.07.19 | 2016.07.19 | Fixed rate | 4.08% | | 150,000 | 150,000 |
| Corporate bond #17-2 | 2011.07.19 | 2018.07.19 | Fixed rate | 4.18% | | 100,000 | 100,000 |
| Corporate bond #17-3 | 2011.07.19 | 2021.07.19 | Fixed rate | 4.28% | | 100,000 | 100,000 |
| Corporate bond #18-1 | 2012.09.10 | 2019.09.10 | Fixed rate | 3.18% | | 100,000 | 100,000 |
| Corporate bond #18-2 | 2012.09.10 | 2022.09.10 | Fixed rate | 3.23% | | 90,000 | 90,000 |
| Corporate bond #18-3 | 2012.09.10 | 2027.09.10 | Fixed rate | 3.31% | | 110,000 | 110,000 |
| Corporate bond #19-1 | 2013.03.08 | 2017.03.08 | Fixed rate | 2.79% | | 90,000 | 90,000 |
| Corporate bond #19-2 | 2013.03.08 | 2020.03.08 | Fixed rate | 2.98% | | 80,000 | 80,000 |
| Corporate bond #19-3 | 2013.03.08 | 2023.03.08 | Fixed rate | 3.09% | | 130,000 | 130,000 |
| Corporate bond #20-1 | 2013.04.09 | 2017.04.09 | Fixed rate | 2.60% | | 90,000 | 90,000 |
| Corporate bond #20-2 | 2013.04.09 | 2020.04.09 | Fixed rate | 2.78% | | 100,000 | 100,000 |
| Corporate bond #20-3 | 2013.04.09 | 2023.04.09 | Fixed rate | 2.89% | | 210,000 | 210,000 |
| Corporate bond #21-1 | 2013.09.17 | 2016.09.17 | Fixed rate | 3.03% | | 100,000 | 100,000 |
| Corporate bond #21-2 | 2013.09.17 | 2020.09.17 | Fixed rate | 3.53% | | 100,000 | 100,000 |
| Corporate bond #22-1 | 2013.10.30 | 2016.10.30 | Fixed rate | 3.04% | | 120,000 | 120,000 |
| Corporate bond #22-2 | 2013.10.30 | 2018.10.30 | Fixed rate | 3.33% | | 40,000 | 40,000 |
| Corporate bond #22-3 | 2013.10.30 | 2023.10.30 | Fixed rate | 3.62% | | 40,000 | 40,000 |
| Corporate bond #23-1 | 2013.11.26 | 2017.11.26 | Fixed rate | 3.40% | | 80,000 | 80,000 |
| Corporate bond #23-2 | 2013.11.26 | 2023.11.26 | Fixed rate | 3.88% | | 100,000 | 100,000 |
| Corporate bond #24-1 | 2014.01.21 | 2019.01.21 | Fixed rate | 3.49% | | 150,000 | 150,000 |
| Corporate bond #24-2 | 2014.01.21 | 2024.01.21 | Fixed rate | 3.80% | | 50,000 | 50,000 |
| Corporate bond #26-1 | 2014.03.06 | 2019.03.06 | Fixed rate | 3.31% | | 50,000 | 50,000 |
| Corporate bond #26-2 | 2014.03.06 | 2024.03.06 | Fixed rate | 3.71% | | 160,000 | 160,000 |
| Corporate bond #26-3 | 2014.03.06 | 2034.03.06 | Fixed rate | 3.92% | | 90,000 | 90,000 |
| Corporate bond #27-1 | 2014.05.13 | 2019.05.13 | Fixed rate | 3.24% | | 70,000 | 70,000 |
| Corporate bond #27-2 | 2014.05.13 | 2024.05.13 | Fixed rate | 3.58% | | 260,000 | 260,000 |
| Corporate bond #27-3 | 2014.05.13 | 2029.05.13 | Fixed rate | 3.73% | | 60,000 | 60,000 |
| Corporate bond #28-1 | 2014.07.10 | 2017.07.10 | Fixed rate | 2.67% | | 110,000 | 110,000 |
| Corporate bond #28-2 | 2014.07.10 | 2021.07.10 | Fixed rate | 3.07% | | 60,000 | 60,000 |
| Corporate bond #29-1 | 2014.09.01 | 2017.09.01 | Fixed rate | 2.59% | | 180,000 | 180,000 |
| Corporate bond #29-2 | 2014.09.01 | 2019.09.01 | Fixed rate | 2.81% | | 60,000 | 60,000 |
| Corporate bond #30-1 | 2014.11.07 | 2019.11.07 | Fixed rate | 2.32% | | 190,000 | 190,000 |
| Corporate bond #30-2 | 2014.11.07 | 2024.11.07 | Fixed rate | 2.69% | | 60,000 | 60,000 |
| Corporate bond #31 | 2014.12.10 | 2017.12.10 | Fixed rate | 2.25% | | 100,000 | 100,000 |
| Private bond #32 | 2015.02.12 | 2018.02.12 | Fixed rate | 1.96% | | 100,000 | - |
| Corporate bond #33-1 | 2015.06.04 | 2018.06.04 | Fixed rate | 1.90% | | 60,000 | - |
| Corporate bond #33-2 | 2015.06.04 | 2022.06.04 | Fixed rate | 2.40% | | 40,000 | - |
| Corporate bond #34-1 | 2015.07.02 | 2018.07.02 | Fixed rate | 1.91% | | 70,000 | - |
| Corporate bond #34-2 | 2015.07.02 | 2020.07.02 | Fixed rate | 2.30% | | 130,000 | - |
| Corporate bond #34-3 | 2015.07.02 | 2025.07.02 | Fixed rate | 2.66% | | 120,000 | - |
| Corporate bond #35 | 2015.11.11 | 2020.11.11 | Fixed rate | 2.10% | | 60,000 | - |
| | | | | | | 4,270,000 | 3,790,000 |
| | | Less: discount on debentures | | | | (7,267) | (7,839) |
| | | Less: current portion | | | | (480,000) | (100,000) |
| | | | | | ₩ | 3,782,733 | 3,682,161 |

## 21. Loans and Borrowings, Continued

(6) Foreign debentures as of December 31, 2015 and December 31, 2014 are as follows:

(i) As of December 31, 2015

| *In millions of won, In thousands of usd* | Issue date | Maturity date | Annual interest rate | | USD | Won equivalents |
|---|---|---|---|---|---|---|
| Euro bond #13 | 2014.02.05 | 2018.02.05 | Fixed rate | 1.88% | $ 300,000 | ₩ 351,600 |
| Corporate bond #25 | 2015.01.28 | 2017.01.28 | Floating rate | 3M Libor + 1.05% | 100,000 | 117,200 |
| | | | | | $ 400,000 | 468,800 |
| | | | Less: discount on debentures | | | (1,800) |
| | | | | | | ₩ 467,000 |

(ii) As of December 31, 2014

| *In millions of won, In thousands of usd* | Issue date | Maturity date | Annual interest rate | | USD | Won equivalents |
|---|---|---|---|---|---|---|
| Euro bond #13 | 2013.02.05 | 2018.02.05 | Fixed rate | 1.88% | $ 300,000 | ₩ 329,760 |
| Corporate bond #25 | 2014.01.28 | 2017.01.28 | Floating rate | 3M Libor + 1.05% | 100,000 | 109,920 |
| | | | | | $ 400,000 | 439,680 |
| | | | Less: discount on debentures | | | (2,535) |
| | | | | | | ₩ 437,145 |

## 22. Retirement Benefit Obligations

(1) The Group operates a defined contribution retirement pension and defined benefit retirement pension for employees. In relation to a defined contribution retirement pension, the contributions are recognized as an expense of ₩4,814 million and ₩5,928 million, respective for the three-month periods ended December 31, 2015 and 2014, there is no contribution of non-payment with should be recognized as a liability.

(2) The principal assumptions used on actuarial valuation as of December 31, 2015 and 2014 are as follows:

| | **December 31, 2015** | **December 31, 2014** |
|---|---|---|
| Discount rate | 2.57% | 3.11% |
| Future salary and benefit levels | 4.18~8.84% | 4.18%~8.84% |

## 22. Retirement Benefit Obligations, Continued

(3) Details of the Group's expense relating to its defined benefit plans for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Current service cost | ₩ | 12,464 | 11,247 |
| Past service cost | | - | (5,803) |
| Gain or loss on settlement | | - | (3,442) |
| Interest cost | | 2,049 | 2,684 |
| Expected return on plan assets | | (429) | (670) |
| | ₩ | 14,084 | 4,016 |

The Group recognized these expenses as payments to employee benefits. For the years ended December 31, 2015 and 2014, the Group recognized: cost of sales of ₩11,062 million and ₩3,561 million, respectively: selling and administrative expenses of ₩711 million and ₩(-)367 million, respectively : and others of ₩2,311 million and ₩822 million, respectively.

(4) Retirement benefit obligation as of December 31, 2015 and 2014 is as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Present value of defined benefit obligation from funded plans | ₩ | 76,542 | 62,870 |
| Fair value of plan assets | | (18,536) | (13,044) |
| Net retirement obligations from defined benefit plans | ₩ | 58,006 | 49,826 |

In addition to net liabilities arising from the defined benefit obligation, long-term employee benefit liabilities of ₩301 million and ₩385 million are included in employee benefit obligations as of December 31, 2015 and December 31, 2014, respectively.

(5) Changes in retirement benefit obligation for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Beginning balance | ₩ | 62,870 | 71,967 |
| Current service cost | | 12,464 | 11,247 |
| Past service cost | | - | (5,803) |
| Gain or loss on settlement | | - | (3,442) |
| Interest cost | | 2,049 | 2,684 |
| Remeasurement component | | 592 | 12,784 |
| Actual payments | | (1,433) | (26,567) |
| Ending balance | ₩ | 76,542 | 62,870 |

## 22. Retirement Benefit Obligations, Continued

(6) Changes in the fair value of the plan assets for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Beginning balance | ₩ | 13,044 | 19,157 |
| Expected return | | 429 | 670 |
| Remeasurement component | | (131) | (211) |
| Actual payments | | - | (6,572) |
| Contributions by the employers | | 5,194 | - |
| Ending balance | ₩ | 18,536 | 13,044 |

Accumulated actuarial losses on plan assets recorded as other comprehensive income amounted to ₩27,916 million and ₩27,368 million, respectively, as of December 31, 2015 and December 31, 2014.

(7) The amount of major categories of the fair value of plan assets as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Equity instrument | ₩ | 181 | 582 |
| Debt instrument | | 2,413 | 2,296 |
| Deposits | | 4,808 | 2,270 |
| Others | | 11,134 | 7,896 |
| | ₩ | 18,536 | 13,044 |

Actual return on plan assets for the years ended December 31, 2015 and 2014 are ₩298 million and ₩459 million, respectively.

(8) Remeasurement component recognized in other comprehensive income for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Actuarial gain (loss) from changes in financial | | (6,516) | (8,586) |
| Experience adjustments | | 5,924 | (4,198) |
| Expected return | | (131) | (211) |
| | ₩ | (723) | (12,995) |

## 23. Provisions

(1) Provisions as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | September 30, 2015 | | December 31, 2014 | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Provision for employment benefits | ₩ | 30,250 | - | 31,622 | - |
| Other provisions | | | | | |
| Renewable portfolio standard provisions(*1) | | 23,407 | - | 46,497 | - |
| Provision for litigations(*2) | | 14,908 | - | 13,439 | - |
| Financial guarantee provisions | | 1,730 | 425 | - | - |
| | ₩ | 70,295 | 425 | 91,558 | - |

(*1) For the estimated penalty the Group will be assessed by the government for failure to comply with governmental regulations that require the production of a certain amount of power from renewable energy sources such as solar, wind and biomass.
(*2) The Group recognized a provision for the litigation of ordinary wage as an outflow of resources embodying economic benefits is probable and reliably estimable.

(2) Changes in provisions for the years ended December 31, 2015 and 2014 are as follows:

(i) For the year ended December 31, 2015

| *In millions of won* | | Beginning balance | Accrual (Reversal) of provision | Use | Ending balance |
|---|---|---|---|---|---|
| Provision for employment benefits | ₩ | 31,622 | 34,699 | (36,071) | 30,250 |
| Other provisions | | | | | |
| Renewable portfolio standard provisions | | 46,497 | (23,090) | - | 23,407 |
| Provision for litigation | | 13,439 | 14,996 | (13,527) | 14,908 |
| Provision for financial guarantee | | - | 2,156 | - | 2,155 |
| | ₩ | 91,558 | 28,761 | (49,598) | 70,720 |

(ii) For the year ended December 31, 2014

| *In millions of won* | | Beginning balance | Accrual of provision | Use | Ending balance |
|---|---|---|---|---|---|
| Provision for employment benefits | ₩ | 28,838 | 31,622 | (28,838) | 31,622 |
| Other provisions | | | | | |
| Renewable portfolio standard provisions | | 36,453 | 16,184 | (6,140) | 46,497 |
| Provision for litigations | | - | 13,439 | - | 13,439 |
| | ₩ | 65,291 | 61,245 | (34,978) | 91,558 |

(3) The Group has not recognized a provision for greenhouse gas emissions because greenhouse gas emissions that were generated for the year ended December 31, 2015 did not exceed the allocated emissions received free from the government.

## 24. Government Grants

Changes in government grants for the years ended December 31, 2015 and 2014 are as follows:

(i) For the year ended December 31, 2015

*In millions of won*

| | | Beginning balance | Depreciation offset | Ending balance |
|---|---|---|---|---|
| Buildings | ₩ | 108 | (4) | 104 |
| Machinery | | 363 | (42) | 321 |
| Equipment | | 390 | (241) | 149 |
| | ₩ | 861 | (287) | 574 |

(ii) For the year ended December 31, 2014

*In millions of won*

| | | Beginning balance | Depreciation offset | Ending balance |
|---|---|---|---|---|
| Buildings | ₩ | 111 | (3) | 108 |
| Machinery | | 404 | (41) | 363 |
| Equipment | | 631 | (241) | 390 |
| | ₩ | 1,146 | (285) | 861 |

## 25. Non-financial Liabilities

Other non-financial liabilities as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | | December 31, 2014 | |
|---|---|---|---|---|---|
| | | Current | Non-current | Current | Non-current |
| Advances received | ₩ | 747 | - | 516 | - |
| Unearned revenues | | 247 | - | 6 | - |
| Withholdings | | 7,214 | - | 4,413 | - |
| Others | | 10,273 | - | 1,083 | - |
| | ₩ | 18,481 | - | 6,018 | - |

## 26. Share Capital

(1) Shares capital as of December 31, 2015 and 2014 is as follows:

| *In millions of won , except par value* | | | | December 31, 2015 | | December 31, 2014 | |
|---|---|---|---|---|---|---|---|
| Type | Number of shares authorized | Number of shares issued | Par value | Govt. | Non-govt. | Govt. | Non-govt. |
| Common Stock | 100,000,000shares | 45,765,507shares | 5,000 | - | 228,828 | - | 228,828 |

(2) Share premium as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Paid-in capital in excess of par value | ₩ | 1,544,694 | 1,544,694 |

## 27. Retained Earnings and Dividends

(1) Retained earnings as of December 31, 2015 and 2014 are summarized as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Legal reserves (*) | ₩ | 58,299 | 57,270 |
| Voluntary reserves | | 907,495 | 850,314 |
| Retained earnings before appropriations | | 953,046 | 800,671 |
| | ₩ | 1,918,840 | 1,708,255 |

(*) The Commercial Code of the Republic of Korea requires the Group to appropriate as a legal reserve, an amount equal to a minimum of 10% of annual cash dividends paid, until the reserve equals 50% of its issued capital stock. The reserve is not available for the payment of cash dividends, but may be transferred to capital stock through a resolution of the Board of Directors or used to reduce accumulated deficit, if any, with the ratification of the shareholders.

## 27. Retained Earnings and Dividends, Continued

(2) Composition of voluntary reserves as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Reserve for business stabilization (*1) | ₩ | 38 | 38 |
| Reserve for research and human development (*2) | | 47,000 | 47,000 |
| Reserve for investment on social overhead capital | | 84,498 | 84,498 |
| Reserve for business expansion | | 775,959 | 718,778 |
| | ₩ | 907,495 | 850,314 |

(*1) Prior to 2002, the Group appropriated certain tax-deductible benefits as reserve for business stabilization, for offsetting future deficit in accordance with the relevant tax laws. Due to the amendment of such tax laws on December11, 2002, the reserve is no longer required. However, the Group continues to maintain such reserve on a voluntary basis.

(*2) The reserve for research and human development is appropriated by the Group to use as qualified tax credits to reduce corporate tax liabilities. The reserve is available for cash dividends for a certain period as defined by the Tax Incentive Control Law of Korea.

(3) Changes in retained earnings before appropriations for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Beginning balance | ₩ | 1,708,255 | 1,684,918 |
| Profit for the period-Controlling company | | 221,450 | 64,043 |
| Dividends paid | | (10,272) | (30,800) |
| Actuarial losses | | (548) | (9,850) |
| Changes in retained earnings of equity method investments | | (45) | (56) |
| Ending balance | ₩ | 1,918,840 | 1,708,255 |

(4) Dividends paid for the years ended December 31, 2015 and 2014 are as follows:

(i) For the year ended December 31, 2015

| Type | Number of shares issued (shares) | Number of treasury shares (shares) | Number of share eligible for dividends (shares) | Dividends per share (in won) | Total dividends (in millions of won) |
|---|---|---|---|---|---|
| Common stock | 45,765,507 | - | 45,765,507 | 224 | 10,272 |

(ii) For the year ended December 31, 2014

| Type | Number of shares issued (shares) | Number of treasury shares (shares) | Number of share eligible for dividends (shares) | Dividends per share (in won) | Total dividends (in millions of won) |
|---|---|---|---|---|---|
| Common stock | 45,765,507 | - | 45,765,507 | 673 | 30,800 |

## 27. Retained Earnings and Dividends, Continued

(5) Changes in actuarial losses on retirement benefit obligations for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Beginning balance | ₩ | 27,368 | 17,518 |
| Changes for the period | | 723 | 12,995 |
| Income tax effect | | (175) | (3,145) |
| Ending balance | ₩ | 27,916 | 27,368 |

## 28. Statement of Appropriation of Retained Earnings

For the year ended December 31, 2015, the Group's retained earnings are expected to be appropriated on March 28, 2016. For the year ended December 31, 2014, the Group's retained earnings were appropriated on March 27, 2015.

Statements of appropriation of retained earnings of KOSPO, the controlling company, for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Ⅰ. Retained earnings before appropriations | | | |
| Unappropriated retained earnings carried over from prior years | ₩ | 727,940 | 737,790 |
| Remeasurements of the defined benefit plan | | (548) | (9,850) |
| Net income | | 224,757 | 68,481 |
| | | 952,149 | 796,421 |
| Ⅱ. Appropriations of retained earnings | | | |
| Dividends | | 17,849 | 10,272 |
| Legal reserves | | 1,785 | 1,027 |
| Voluntary reseves | | 205,123 | 57,182 |
| | | 224,757 | 68,481 |
| Ⅲ. Unappropriated retained earnings to be carried over to subsequent year (Ⅰ - Ⅱ) | ₩ | 727,392 | 727,940 |

## 29. Components of Equity

(1) Other components of equity as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Accumulated other comprehensive income | ₩ | (6,139) | (6,317) |
| Other equity | | (686) | (686) |
| | ₩ | (6,825) | (7,003) |

(2) Changes in accumulated other comprehensive income for the years ended December 31, 2015 and 2014 are as follows:

(i) For the year ended December 31, 2015

| *In millions of won* | | Available-for-sale financial assets valuation reserve | Reserve for gain (loss) on valuation of derivatives | Share in other comprehensive loss of associates | Reserve for gain (loss) on overseas operations translation credit |
|---|---|---|---|---|---|
| Beginning balance | ₩ | 2,286 | (5,698) | (678) | (2,227) |
| Available-for-sale financial assets | | 664 | - | - | - |
| Valuation of derivatives | | - | 3,101 | - | - |
| Investments in associates | | - | - | (2,660) | - |
| Overseas operations translation | | - | - | - | (16) |
| Tax effect | | (161) | (750) | - | - |
| Ending balance | ₩ | 2,789 | (3,347) | (3,338) | (2,243) |

(ii) For the year ended December 31, 2014

| *In millions of won* | | Available-for-sale financial assets valuation reserve | Reserve for gain (loss) on valuation of derivatives | Share in other comprehensive income (loss) of associates | Reserve for gain (loss) on overseas operations translation credit |
|---|---|---|---|---|---|
| Beginning balance | ₩ | 2,165 | 2,687 | (497) | (1,760) |
| Available-for-sale financial assets | | 158 | - | - | - |
| Valuation of derivatives | | - | (11,061) | - | - |
| Investments in associates | | - | - | (181) | - |
| Overseas operations translation | | - | - | - | (467) |
| Tax effect | | (37) | 2,676 | - | - |
| Ending balance | ₩ | 2,286 | (5,698) | (678) | (2,227) |

## 30. Sales

Details of sales for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | December 31, 2015 | | December 31, 2014 | |
|---|---|---|---|---|
| | Domestic | Overseas | Domestic | Overseas |
| Income from sales of electric power | ₩ 4,303,644 | - | 6,200,855 | - |
| Income from services | - | 14,352 | - | 8,681 |
| Other sales | - | 14,696 | - | 34,030 |
| | W 4,303,644 | 29,048 | 6,200,855 | 42,711 |

## 31. Selling and Administrative Expenses

Composition of selling and administrative expenses for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | December 31, 2015 | December 31, 2014 |
|---|---|---|
| Salaries | ₩ 11,847 | 12,216 |
| Retirement benefit expense | 1,139 | 364 |
| Welfare and benefit expense | 1,610 | 1,660 |
| Insurance expenses | 39 | 43 |
| Depreciation | 11,456 | 6,708 |
| Amortization | 6,752 | 6,227 |
| Commission | 13,630 | 13,665 |
| Advertisement | 817 | 870 |
| Training | 237 | 270 |
| Vehicles | 77 | 51 |
| Publication expenses | 121 | 163 |
| Business expenses | 129 | 141 |
| Rent | 586 | 2,708 |
| Communication | 1,019 | 1,125 |
| Transportation expense | - | 486 |
| Taxes and dues | 329 | 144 |
| Supplies expenses | 43 | 23 |
| Utilities expenses | - | 5 |
| Repairs | 13,943 | 9,534 |
| Ordinary development expenses | 6,771 | 8,025 |
| Travel expenses | 522 | 570 |
| Clothing expenses | 16 | 243 |
| Research and analysis expenses | 7 | 7 |
| Membership fee | 112 | 26 |
| Others | 5,915 | 4,301 |
| | ₩ 77,117 | 69,575 |

## 32. Other non-operating Income and Expense

(1) Other non-operating income for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Gain on assets contributed | W | 4,485 | 2,219 |
| Compensation and reparations revenue | | 1,023 | 10,985 |
| Rental income | | 3,179 | 3,275 |
| Gains on guarantee contracts | | 4,523 | - |
| | ₩ | 13,210 | 16,479 |

(2) Other non-operating expenses for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Compensation and indemnification expense | ₩ | 16,958 | - |
| Accretion expenses of other provisions | | 4,255 | - |
| Donations | | 1,140 | 1,490 |
| | ₩ | 22,353 | 1,490 |

## 33. Other Profit and Loss

Composition of other profit and loss for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Gain on disposal of property, plant and equipment | ₩ | 9,718 | 6,251 |
| Gain on foreign currency translation | | 2,968 | 238 |
| Gain on foreign currency transactions | | 3,971 | 2,737 |
| Gain on disposal of inventories | | 620 | 1,459 |
| Other income | | 11,354 | 9,711 |
| Loss on disposal of property, plant and equipment | | (42,515) | (14,615) |
| Loss on disposal of inventories | | (10,409) | (446) |
| Loss on foreign currency translation | | (3,872) | (1,127) |
| Loss on foreign currency transactions | | (6,099) | (10,237) |
| Other loss | | (2,771) | (1,651) |
| | ₩ | (37,035) | (7,680) |

## 34. Finance Income

(1) Finance income for the years ended December 31, 2015 and 2014 is as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Interest income | ₩ | 4,250 | 5,985 |
| Gain on valuation of derivatives | | 29,152 | 14,768 |
| Gain on transactions of derivatives | | 6,043 | - |
| Gain on foreign currency translation (*) | | 104 | 95 |
| Gain on foreign currency transactions (*) | | 33 | 4,642 |
| | ₩ | 39,582 | 25,490 |

(*) Incurred from Group's financing activities

(2) Interest income included in finance income for the years ended December 31, 2015 and 2014 is as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Cash and cash equivalents | ₩ | 2,569 | 3,520 |
| Available-for-sale financial assets | | - | 382 |
| Loans | | 625 | 800 |
| Trade and other receivables | | 1,056 | 1,283 |
| | ₩ | 4,250 | 5,985 |

## 35. Finance Expenses

(1) Finance expenses for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Interest expense | ₩ | 52,991 | 60,511 |
| Loss on disposal of available-for-sale financial assets | | 60 | 594 |
| Impairment loss on available-for-sale financial assets | | 12,989 | 5,551 |
| Loss on valuation of derivatives | | 166 | 5 |
| Loss on transaction of derivatives | | 3,449 | 3,510 |
| Loss on foreign currency translation (*) | | 29,213 | 15,374 |
| Loss on foreign exchange transactions (*) | | 1 | 1,503 |
| | ₩ | 98,869 | 87,048 |

(*) Incurred from financing activities

## 35. Finance Expenses, Continued

(2) Interest expenses included in finance expenses for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Short-term borrowings | ₩ | 236 | 647 |
| Long-term borrowings | | 36 | 475 |
| Debentures | | 139,015 | 121,759 |
| Other financial liabilities | | 3,999 | 3,853 |
| | | 143,286 | 126,734 |
| Less : capitalized borrowing costs | | (90,295) | (66,223) |
| | ₩ | 52,991 | 60,511 |

Capitalization rates for the years ended December 31, 2015 and 2014 are 2.98% and 3.28%, respectively.

## 36. Income Tax Expenses

(1) Components of incomes tax expense for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Current income tax expenses | ₩ | 18,811 | 20,672 |
| Current income tax | | 24,711 | 14,973 |
| Adjustment for the prior years | | (5,164) | (86) |
| Income tax charged (credited) directly in equity | | (736) | 5,785 |
| Deferred income tax expense | | 24,722 | (5,495) |
| Generation and realization of temporary differences | | 21,925 | (7,673) |
| Changes in deferred tax on tax losses incurred in the period | | - | 3,490 |
| Tax credit carry forwards | | 2,797 | (1,312) |
| Income tax expense | ₩ | 43,533 | 15,177 |

## 36. Income Tax Expenses, Continued

(2) Reconciliation between income tax expense and accounting income for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Profit before income tax expense | ₩ | 264,985 | 79,220 |
| Income tax expense in accordance with applicable tax rate (tax rate: 24.2%) | | 64,126 | 19,171 |
| Adjustments | | | |
| Effect of applying gradual tax rate | | (462) | (231) |
| Effect of non-taxable revenue | | (1,444) | - |
| Effect of non-deductible expenses | | 10,878 | 2,915 |
| Effect of tax credit and tax reduction | | (13,247) | (8,948) |
| Additional payment of income taxes or receipt of income tax refunds | | (13,582) | - |
| Others | | 2,429 | 2,355 |
| | | (15,428) | (3,909) |
| Change to estimates for the prior periods | | (5,164) | (85) |
| Income tax expense | ₩ | 43,534 | 15,177 |
| Effective tax rate | | 16.4% | 19.2% |

(3) There is no deferred income tax directly adjusted to shareholders' equity (except for accumulated other comprehensive income) for the years ended December 31, 2015 and 2014.

(4) Income tax recognized as accumulated other comprehensive income for the years ended December 31, 2015 and 2014 is as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Income tax recognized as accumulated other comprehensive income | | | |
| Gain (loss) on valuation of available-for-sale financial assets | ₩ | (161) | (37) |
| Net change in the unrealized fair value of derivatives using cash flow hedge accounting, | | (750) | 2,210 |
| Actuarial gains and losses | | 175 | 3,146 |
| Amounts reclassified from equity to profit or loss | | | |
| Net change in the unrealized fair value of derivatives using cash flow hedge accounting | | - | 466 |
| | ₩ | (736) | 5,785 |

## 36. Income Tax Expenses, Continued

(5) Deferred income tax assets (liabilities) recognized in the consolidated statements of financial position for the years ended December 31, 2015 and 2014 are as follows:

(i) As of December 31, 2015

| *In millions of won* | | Beginning balance | Amounts recognized in profit or loss | Amounts recognized in other comprehensive income | Ending balance |
|---|---|---|---|---|---|
| Deferred income tax on temporary differences | | | | | |
| Employee benefits | ₩ | 21,150 | 1,546 | 175 | 22,871 |
| Cash flow hedge | | 714 | (7,047) | (750) | (7,083) |
| Investments in associates and subsidiaries | | (3,113) | (1,072) | - | (4,185) |
| Property, plant and equipment | | (281,759) | (28,501) | - | (310,260) |
| Intangible assets | | 23 | - | - | 23 |
| Available-for-sale financial assets | | (729) | 4,486 | (161) | 3,596 |
| Provisions | | 14,505 | (4,711) | - | 9,794 |
| Gains (losses) on foreign exchange translation | | 1,221 | 7,021 | - | 8,242 |
| Allowance for doubtful accounts | | (1,227) | 1,227 | - | - |
| Accrued income | | - | (6) | - | (6) |
| Special deduction | | (6,258) | - | - | (6,258) |
| Reserve for research and human development | | (1,602) | 1,602 | - | - |
| Others | | 5,192 | 4,265 | - | 9,457 |
| | | (251,883) | (21,190) | (736) | (273,809) |
| Deferred income tax on unused tax losses and tax credit | | | | | |
| Tax credit | | 2,797 | (2,797) | - | - |
| | ₩ | (249,086) | (23,987) | (736) | (273,809) |

## 36. Income Tax Expenses, Continued

(5) Deferred income tax assets (liabilities) recognized in the consolidated statements of financial position for the years ended December 31, 2015 and 2014 are as follows, Continued:

(ii) As of December 31, 2014

| *In millions of won* | | Beginning balance | Amounts recognized in profit or loss | Amounts recognized in other comprehensive income | Amounts recognized directly in equity | Ending balance |
|---|---|---|---|---|---|---|
| Deferred income tax on temporary differences | | | | | | |
| Employee benefits | ₩ | 20,742 | (2,737) | 3,146 | - | 21,151 |
| Cash flow hedge | | 1,976 | (3,940) | 2,210 | 466 | 712 |
| Investments in associates and subsidiaries | | (2,395) | (718) | - | - | (3,113) |
| Property, plant and equipment | | (273,704) | (8,055) | - | - | (281,759) |
| Intangible assets | | 23 | - | - | - | 23 |
| Available-for-sale financial assets | | (691) | - | (37) | - | (728) |
| Provisions | | 8,822 | 5,683 | - | - | 14,505 |
| Gains (losses) on foreign exchange translation | | (5,861) | 7,082 | - | - | 1,221 |
| Allowance for doubtful accounts | | (1,227) | - | - | - | (1,227) |
| Accrued income | | (5) | 5 | - | - | - |
| Special deduction | | (6,258) | - | - | - | (6,258) |
| Reserve for research and human development | | (3,203) | 1,601 | - | - | (1,602) |
| Others | | 2,224 | 2,968 | - | - | 5,192 |
| | | (259,557) | 1,889 | 5,319 | 466 | (251,883) |
| Deferred income tax on unused tax losses and tax credit | | | | | | |
| Tax losses | | 3,490 | (3,490) | - | - | - |
| Tax credit | | 1,485 | 1,312 | - | - | 2,797 |
| | | 4,975 | (2,178) | - | - | 2,797 |
| | ₩ | (254,582) | (289) | 5,319 | 466 | (249,086) |

(6) Deferred income tax assets (liabilities) recognized in the consolidated statements of financial position as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | **December 31, 2015** | **December 31, 2014** |
|---|---|---|
| Deferred income tax liabilities | 273,809 | 249,086 |

## 37. Expenses Classified by Nature

Expenses classified by nature for the years ended December 31, 2015 and 2014 are as follows:

(i) For the year ended December 31, 2015

| *In millions of won* | | Selling and administrative expenses | Cost of sales | Total |
|---|---|---|---|---|
| Changes in inventories(*) | ₩ | - | 3,019,240 | 3,019,240 |
| Salaries | | 11,847 | 118,096 | 129,943 |
| Retirement benefit expense | | 1,139 | 14,744 | 15,883 |
| Welfare and benefit expense | | 1,610 | 12,482 | 14,092 |
| Insurance expenses | | 39 | 10,265 | 10,304 |
| Deprecation | | 11,456 | 506,250 | 517,706 |
| Amortization | | 6,752 | 2,639 | 9,391 |
| Commission | | 13,630 | 8,768 | 22,398 |
| Advertisement | | 817 | 208 | 1,025 |
| Training | | 237 | 54 | 291 |
| Vehicles | | 77 | 84 | 161 |
| Publication expenses | | 121 | 69 | 190 |
| Business expenses | | 129 | 175 | 304 |
| Rent | | 586 | 11,824 | 12,410 |
| Communication | | 1,019 | 136 | 1,155 |
| Transportation expenses | | - | 15 | 15 |
| Taxes and dues | | 329 | 21,985 | 22,314 |
| Supplies expenses | | 43 | 908 | 951 |
| Utilities expenses | | - | 643 | 643 |
| Repairs | | 13,943 | 123,850 | 137,793 |
| Ordinary development expenses | | 6,771 | 15,718 | 22,489 |
| RPS provision | | - | (23,090) | (23,090) |
| Travel expenses | | 522 | 490 | 1,012 |
| Clothing expenses | | 16 | - | 16 |
| Research and analysis expenses | | 7 | 135 | 142 |
| Membership fee | | 112 | 236 | 348 |
| Others | | 5,915 | 39,291 | 45,206 |
| | ₩ | 77,117 | 3,885,215 | 3,962,332 |

(*) This includes incurred fuel costs and other operational costs.

## 37. Expenses Classified by Nature, Continued

Expenses classified by nature for the years ended December 31, 2015 and 2014 are as follows: Continued:

(ii) For the year ended December 31, 2014

| *In millions of won* | | Selling and administrative expenses | Cost of sales | Total |
|---|---|---|---|---|
| Changes in inventories(*) | ₩ | - | 5,148,569 | 5,148,569 |
| Salaries | | 12,216 | 120,741 | 132,957 |
| Retirement benefit expense | | 364 | 7,905 | 8,269 |
| Welfare and benefit expense | | 1,660 | 13,218 | 14,878 |
| Insurance expenses | | 43 | 9,206 | 9,249 |
| Deprecation | | 6,708 | 467,920 | 474,628 |
| Amortization | | 6,227 | 1,671 | 7,898 |
| Commission | | 13,665 | 13,348 | 27,013 |
| Advertisement | | 870 | 326 | 1,196 |
| Training | | 270 | 83 | 353 |
| Vehicles | | 51 | 98 | 149 |
| Publication expenses | | 163 | 61 | 224 |
| Business expenses | | 141 | 227 | 368 |
| Rent | | 2,708 | 10,624 | 13,332 |
| Communication | | 1,125 | 88 | 1,213 |
| Transportation expenses | | 486 | 13 | 499 |
| Taxes and dues | | 144 | 15,437 | 15,581 |
| Supplies expenses | | 23 | 1,038 | 1,061 |
| Utilities expenses | | 5 | 633 | 638 |
| Repairs | | 9,534 | 126,169 | 135,703 |
| Ordinary development expenses | | 8,025 | 11,019 | 19,044 |
| RPS provision | | - | 17,946 | 17,946 |
| Travel expenses | | 570 | 1,006 | 1,576 |
| Clothing expenses | | 243 | 107 | 350 |
| Research and analysis expenses | | 7 | 154 | 161 |
| Membership fee | | 26 | 204 | 230 |
| Others | | 4,301 | 67,849 | 72,150 |
| | ₩ | 69,575 | 6,035,660 | 6,105,235 |

(*) This includes incurred fuel costs and other operational costs.

## 38. Earnings per share

(1) The basic of earnings per share for the years ended December 31, 2015 and 2014 are as follows:

| *In won* | | **December 31, 2015** | **December 31, 2014** |
|---|---|---|---|
| Basic earnings per share | ₩ | 4,839 | 1,399 |

## 38. Earnings per share, Continued

(2) Profit for the period and weighted average number of common shares outstanding for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won, except for shares* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Profit for the period | ₩ | 221,450 | 64,043 |
| Weighted average number of common share | | 45,765,507shares | 45,765,507shares |

## 39. Risk Management

(1) Capital risk management

The Group manages its capital to ensure that it will be able to continue business while maximizing the return to shareholder's through the optimization of debt and equity balance business. The capital structure of the Group consists of net debt (offset by cash and bank balances) and equity. The Group's overall capital risk management strategy remains unchanged from that of the prior year.

Details of the Group's capital management accounts as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Total borrowings and debentures | ₩ | 4,733,822 | 4,235,779 |
| Cash and cash equivalents(*) | | 202,151 | 10,839 |
| Net borrowings and debentures | | 4,531,671 | 4,224,940 |
| Total shareholder's equity | | 3,710,537 | 3,474,774 |
| Debt to equity ratio | | 122.13% | 121.59% |

(*) Short-term financial instruments are included.

(2) Financial risk management

The Group is exposed to various risks related to its financial instruments, such as market risk (currency risk, interest rate risk, price risk) and credit risk. The Group monitors and manages the financial risks relating to the operations of the Group through internal risk reports which analyse exposures by degree and magnitude of risks.

The Group uses derivative financial instruments to hedge certain risk exposures. The Group's overall financial risk management strategy remains unchanged from the prior year.

1) Credit risk

Credit risk is the risk of finance loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises primarily from the Group's debt securities and derivative instruments. In addition, credit risk exposure may exist within financial guarantees and unused lines of credit. The financial institutions the Group enters into transactions with are reputable financial institutions, therefore the credit risk to the Group is considered limited. The Group sets credit transaction limits based on evaluations of client's credit, through information obtained from the credit bureau and disclosed financial position at committing contracts.

## 39. Risk Management, Continued

(2) Financial risk management, Continued:

1) Credit risk, Continued

a) Credit risk management

The Group uses publicly available information and its own internal data related to accounts receivable to rate its major customers and to measure the credit risk that a counter party will default on a contractual obligation. As the majority of the Group's accounts receivables are due from governmental entities, the Group does not have significant credit risk exposure. Regarding its debt securities, the Group continuously reviews credit ratings issued by credit agencies, and the Group's working capital (i.e. cash) is deposited at financial institutions with high credit ratings.

b) Impairment and allowance accounts

In accordance with the Group policies, individual material financial assets are assessed on a regular basis, trade receivables that are assessed not to be impaired individually are, in addition, assessed for impairment on a collective basis. The estimated value of any acquired collateral and estimated collectable amounts are included in this assessment.

The allowance for bad debts assessed on a collective basis is recognized for (i) the group of assets which individually are not material and (ii) incurred but not recognized losses that are assessed using statistical methods, judgment and historical experience.

Book values of the financial assets represent the maximum exposed amounts of the credit risk. Details of the Group's level of maximum exposure to credit risk as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Cash and cash equivalents | ₩ | 182,151 | 10,839 |
| Short-term financial instruments | | 20,000 | - |
| Available-for-sale financial assets | | 16,620 | 28,684 |
| Trade and other receivables | | 453,636 | 589,590 |
| Loans | | 13,199 | 11,635 |
| Derivative assets | | 29,307 | 172 |
| Financial guarantee contracts(*) | | 155,407 | - |
| | ₩ | 870,320 | 640,920 |

(*) Maximum exposure associated with the financial guarantee contracts is the maximum amounts of the obligation.

Details of financial guarantee contracts as of December 31, 2015 are as follows:

*In thousands of usd*

| | Company | Currency | Amounts |
|---|---|---|---|
| Joint venture | Kelar S.A. | USD | 132,600 |

For the year ended December 31, 2015, the Group has no financial assets and non-financial assets acquired by the execution of the lien or held for credit enhancement needs.

## 39. Risk Management, Continued

(2) Financial risk management, Continued:

2) Market risk

Market risk is the risk that the Group's fair values of the financial instruments or future cash flows are affected by the changes in the market. Market risk consists of interest rate risk, currency risk and other price risk.

3) Sensitivity analysis

a) Major assets and liabilities with uncertanties in underlying assumptions

① Defined benefit obligation

A sensivity analysis on the Group's defined benefit obligation assuming a 1% increase and decrease in various assumptions as of December 31, 2015 and 2014 are as follows:

*In millions of won*

| | | | December 31, 2015 | | December 31, 2014 | |
|---|---|---|---|---|---|---|
| Assumptions | Accounts | | 1% Increase | 1% Decrease | 1% Increase | 1% Decrease |
| Future salary increases | Defined benefit obligation | ₩ | 11,517 | (9,760) | 10,417 | (8,701) |
| Discount rate | Defined benefit obligation | | (10,183) | 12,353 | (9,002) | 11,066 |

Changes of employee benefits assuming 1% increase and decrease movements in discount rate on plan for the years ended December 31, 2015 and 2014 are ₩132 million and ₩177 million, respectively.

② Provisons

Changes in provisions due to movements in underlying assumptions as of December 31, 2015 and 2014 are as follows:

| Assumptions | Accounts | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Expected payments rate | Provision for employment benefits | 362.89% | 407.85% |

A sensivity analysis on the Group's provision for employment benefit assuming a 1% increase and decrease in various assumptions as of December 31, 2015 and 2014 are as follows:

*In millions of won*

| | | | December 31, 2015 | | December 31, 2014 | |
|---|---|---|---|---|---|---|
| Assumptions | Accounts | | 1% Increase | 1% Decrease | 1% Increase | 1% Decrease |
| Expected payments rate | Provision for employment benefits | ₩ | 83 | (83) | 77 | (77) |

## 39. Risk Management, Continued

(2) Financial risk management, Continued:

3) Sensitivity analysis, Continued

b) Management judgment effected by uncertainties in underlying assumptions

① Foreign currency risk

The Group undertakes transactions denominated in foreign currencies: consequently, exposures to currency exchange rate fluctuations arise. The carrying amount of the Group's foreign currency denominated monetary assets and monetary liabilities at the end of the reporting period are as follows:

| *In thousands of usd, In thousands of eur, In thousands of cny, In thousands of chf* | Assets | | Liabilities | |
|---|---|---|---|---|
| | **December 31, 2015** | **December 31, 2014** | **December 31, 2015** | **December 31, 2014** |
| USD | 19,596 | 2,519 | 473,951 | 444,588 |
| EUR | - | - | 12,738 | 125 |
| CNY | - | - | 26,140 | - |
| CHF | - | - | 29 | 109 |

A sensivity analysis on the Group's income for the period assuming a 10% increase and decrease in currency exchange rates for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | **December 31, 2015** | | **December 31, 2014** | |
|---|---|---|---|---|---|
| | | 10% Increase | 10% Decrease | 10% Increase | 10% Decrease |
| Increase (decrease) of income before income tax | ₩ | (55,357) | 55,357 | (48,621) | 48,621 |
| Increase (decrease) of sharholder's equity (*) | | (55,357) | 55,357 | (48,621) | 48,621 |

(*) The tax effect is not considered.

Sensitivity analysis above is conducted for monetary assets and liabilities denominated in foreign currencies other than functional currency as of December 31, 2015 and 2014.

To manage its foreign currency risk related to foreign currency denominated receivables and payables, the Group has a policy to enter into currency swap agreements. In addition, to manage its foreign currency risk related to foreign currency denominated expected sales transactions and purchase transactions, the Group enters into cross-currency forward agreements

## 39. Risk Management, Continued

(2) Financial risk management, Continued:

3) Sensitivity analysis, Continued

b) Management judgment effected by uncertainties in underlying assumptions, Continued

② Interest rate risk

The Group is exposed to interest rate risk due to its borrowing with floating interest rates. A 1% increase or decrease is used when reporting interest rate risk internally to key management personnel which represents management's assessment of the reasonably possible change in interest rates.

The Group's long-term borrowings and debentures with floating interest rates as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|
| Short-term borrowings | ₩ | 566 | 566 |
| Long-term borrowings | | 2,801 | 3,367 |
| Debentures | | 117,200 | 109,920 |
| | ₩ | 120,567 | 113,853 |

A sensitivity analysis on the Group's long-term borrowings and debentures assuming a 1% increase and decrease in interest rates for the years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | | December 31, 2014 | |
|---|---|---|---|---|---|
| | | 1% Increase | 1% Decrease | 1% Increase | 1% Decrease |
| Increase (decrease) of income before income tax | ₩ | (1,206) | 1,206 | (1,139) | 1,139 |
| Increase (decrease) of sharholder's equity(*) | | (1,206) | 1,206 | (1,139) | 1,139 |

(*) The tax effect is not considered.

The Group enters into certain interest rate swap agreements to manage its interest rate risks in addition to maintaining an appropriate mix of fixed and floating rate loans.

## 39. Risk Management, Continued

(2) Financial risk management, Continued:

4) Liquidity risk

The Group has established an appropriate liquidity risk management framework for the management of the Group's short, medium and long-term funding and liquidity requirements. The Group manages liquidity risk by maintaining adequate reserves, banking facilities and reserve borrowing facilities, by continuously monitoring forecast and actual cash flows, and by matching the maturity profiles of financial assets and liabilities.

In addition, the Group has established credit lines on its trade financing and bank overdrafts, and through payment guarantees it has received, it maintains an adequate credit (borrowing) line. In addition, in case of major construction investment, the Group has the ability to use reserve cash or utilize long-term borrowings.

Details of remaining maturities of the Group's non-derivative financial liabilities based on agreement terms are as follows. The amount disclosed below represents the undiscounted cash flows that the Group is obligated to pay in the future based on the earliest repayment date:

(i) As of December 31, 2015

| *In millions of won* | | Less than 1 year | 1-2 years | 2-5 years | More than 5 years | Total |
|---|---|---|---|---|---|---|
| Borrowings and debentures | ₩ | 619,030 | 885,807 | 2,054,808 | 1,903,218 | 5,462,863 |
| Trade and other payables | | 336,125 | 4,983 | 18,923 | 585 | 360,616 |
| Financial guarantee liabilities | | 124,935 | 30,472 | - | - | 155,407 |
| | ₩ | 1,080,090 | 921,262 | 2,073,731 | 1,903,803 | 5,978,886 |

(ii) As of December 31, 2014

| *In millions of won* | | Less than 1 year | 1-2 years | 2-5 years | More than 5 years | Total |
|---|---|---|---|---|---|---|
| Borrowings and debentures | ₩ | 243,989 | 605,581 | 2,113,990 | 2,063,228 | 5,026,788 |
| Trade and other payables | | 576,159 | 5,031 | 19,466 | 42 | 600,698 |
| | ₩ | 820,148 | 610,612 | 2,133,456 | 2,063,270 | 5,627,486 |

The Group is required to include the information on non-derivative financial liabilities to understand the liquidity risk management as the management is based on net assets and net liabilities.

## 39. Risk Management, Continued

(2) Financial risk management, Continued:

4) Liquidity risk, Continued

The expected maturities for non-derivative financial assets as of December 31, 2015 and 2014 are as follows:

(i) As of December 31, 2015

| *In millions of won* | | Less than 1 year | 1-5 years | Over 5 years | Uncertain | Total |
|---|---|---|---|---|---|---|
| Cash and cash equivalents | ₩ | 182,151 | - | - | - | 182,151 |
| Short-term financial instruments | | 20,000 | - | - | - | 20,000 |
| Available-for-sale financial assets | | - | - | - | 16,620 | 16,620 |
| Loans | | 828 | 10,112 | 2,572 | - | 13,512 |
| Trade and other receivables | | 442,643 | 11,361 | - | - | 454,004 |
| | ₩ | 645,622 | 21,473 | 2,572 | 16,620 | 686,287 |

(ii) As of December 31, 2014

| *In millions of won* | | Less than 1 year | 1-5 years | Over 5 years | Uncertain | Total |
|---|---|---|---|---|---|---|
| Cash and cash equivalents | ₩ | 10,839 | - | - | - | 10,839 |
| Available-for-sale financial assets | | - | - | - | 28,684 | 28,684 |
| Loans | | 1,186 | 7,108 | 4,082 | - | 12,376 |
| Trade and other receivables | | 572,728 | 17,420 | 110 | - | 590,258 |
| | ₩ | 584,753 | 24,528 | 4,192 | 28,684 | 642,157 |

Derivative financial liabilities classified by maturity periods which from reporting date to maturity date of contract as of December 31, 2015 and 2014 are as follows:

(i) As of December 31, 2015

| *In millions of won* | | Less than 1 year | 1-2 years | 2-5 years | Over 5 years | Total |
|---|---|---|---|---|---|---|
| Gross settlement -Trading purpose | ₩ | 166 | - | - | - | 166 |

## 39. Risk Management, Continued

(2) Financial risk management, Continued:

4) Liquidity risk, Continued

(ii) As of December 31, 2014

| *In millions of won* | | Less than 1 year | 1-2 years | 2-5 years | Over 5 years | Total |
|---|---|---|---|---|---|---|
| Gross settlement | | | | | | |
| -Trading purpose | ₩ | 5 | - | - | - | 5 |
| -Hedge accounting purpose | | - | - | 3,529 | - | 3,529 |
| | ₩ | 5 | - | 3,529 | - | 3,534 |

(3) Fair value risk

The fair value of the Group's actively-traded financial instruments (i.e. available-for-sale financial assets, etc.) is based on the traded market-price as of the reporting period end. The fair value of the Group's financial assets is the amount which the asset could be exchanged for or the amount a liability could be settled for.

The fair values of financial instruments where no active market exists or where quoted prices are not otherwise available are determined by using valuation techniques. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, reference to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models. If there is a valuation technique commonly used by market participants to price the instrument and that technique has been demonstrated to provide reliable estimates of prices obtained in actual market transactions, the Group uses that technique.

For trade receivables and payables, the Group considers the carrying value, net of impairment, as fair value. While for disclosure purposes, the fair value of financial liabilities is estimated by discounting a financial instrument with similar contractual cash flows using the effective interest method.

## 39. Risk Management, Continued

(3) Fair value risk, Continued:

1) Fair and book value of financial assets and liabilities as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | | December 31, 2014 | |
|---|---|---|---|---|---|
| | | Book value | Fair value | Book value | Fair value |
| Assets recognized at fair value | | | | | |
| Available-for-sale financial assets | ₩ | 16,620 | 16,620 | 28,684 | 28,684 |
| Derivatives assets (trading) | | 32 | 32 | 88 | 88 |
| Derivatives assets (hedge accounting) | | 29,275 | 29,275 | 84 | 84 |
| | ₩ | 45,927 | 45,927 | 28,856 | 28,856 |
| Assets carried at amortized cost | | | | | |
| Loans and receivables | ₩ | 13,199 | 13,199 | 11,635 | 11,635 |
| Trade and other receivables | | 453,636 | 453,636 | 589,590 | 589,590 |
| Short-term financial instruments | | 20,000 | 20,000 | - | - |
| Cash and cash equivalents | | 182,151 | 182,151 | 10,839 | 10,839 |
| | ₩ | 668,986 | 668,986 | 612,064 | 612,064 |
| Liabilities carried at fair value | | | | | |
| Derivatives liabilities (trading) | ₩ | 166 | 166 | 6 | 6 |
| Derivatives liabilities (hedge accounting) | | - | - | 3,031 | 3,031 |
| | ₩ | 166 | 166 | 3,037 | 3,037 |
| Liabilities carried at amortized cost | | | | | |
| Debentures | ₩ | 4,729,455 | 4,940,329 | 4,219,259 | 4,369,801 |
| Unsecured borrowings | | 4,367 | 4,367 | 16,520 | 16,520 |
| Trade and other payables | | 360,550 | 360,550 | 600,596 | 600,596 |
| | ₩ | 5,094,372 | 5,305,246 | 4,836,375 | 4,986,917 |

2) The discount rate used for calculating fair value is derived from interest rates which are observable from the market, such as government bond interest rate, after considering credit spread. The discount rate used for calculating fair value as of December 31, 2015 and 2014 are as follows:

| | December 31, 2015 | December 31, 2014 |
|---|---|---|
| Derivatives | 0.87~1.74% | 0.44%~2.21% |
| Borrowings | 1.63~2.16% | 2.25%~2.98% |

## 39. Risk Management, Continued

(3) Fair value risk, Continued:

3) Fair value hierarchy

The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value, classified as Level 1, 2, or 3, based on the degree to which the fair value is observable.

- Level 1 : Unadjusted quoted prices in active markets for identical assets or liabilities:
- Level 2 : Inputs other than quoted prices that are observable for the asset or liability either directly or indirectly
- Level 3 : Inputs that are not based on observable market data.

Fair values of financial instruments by hierarchy level as of December 31, 2015 and December 31, 2014, respectively, are as follows:

(i) As of December 31, 2015

| *In millions of won* | | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|---|
| Financial assets at fair value: | | | | | |
| Available-for-sale financial assets | ₩ | - | - | 12,811 | 12,811 |
| Derivative assets | | - | 29,307 | - | 29,307 |
| | | - | 29,307 | 12,811 | 42,118 |
| Financial liabilities at fair value: | | | | | |
| Derivative liabilities | | - | (166) | - | (166) |
| | ₩ | - | 29,141 | 12,811 | 41,952 |

(ii) As of December 31, 2014

| *In millions of won* | | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|---|
| Financial assets at fair value: | | | | | |
| Available-for-sale financial assets | ₩ | - | - | 12,147 | 12,147 |
| Derivative assets | | - | 172 | - | 172 |
| | | - | 172 | 12,147 | 12,319 |
| Financial liabilities at fair value: | | | | | |
| Derivative liabilities | | - | (3,036) | - | (3,036) |
| | ₩ | - | (2,864) | 12,147 | 9,283 |

Changes in Level 3 financial assets for the years ended December 31, 2015 and 2014, respectively, are as follows:

| *In millions of won* | | **December 31, 2015** | **December 31, 2014** |
|---|---|---|---|
| Beginning balance | ₩ | 12,147 | 11,989 |
| Valuation | | 664 | 158 |
| Ending balance | ₩ | 12,811 | 12,147 |

## 40. Related Party Transactions

(1) The nature of the Group's relationship as of December 31, 2015 is as follows:

| Control relationship | Related party |
|---|---|
| Parent company | Korea Electric Power Corporation |
| Associate company | Daegu Green Power Co., Ltd. |
| | Taebaek Wind Power Co., Ltd. |
| | Muju Wind Power Co., Ltd. |
| | PyeongChang Wind Power Co., Ltd. |
| | Jinan Jangsu Wind Power Co., Ltd. |
| | Daeryun Power Co., Ltd. |
| | Changjuk Wind Power Co., Ltd. |
| | KNH Solar Co., Ltd. |
| | Busan Solar Co., Ltd. |
| | Korea Offshore Wind Power Co., Ltd. |
| | Hadong Mineral Fiber Co., Ltd. |
| | Jeongam Wind Power Co., Ltd. |
| | Korea Power Engineering Co., Ltd. |
| | KS Solar Co., Ltd. |
| | Naepo green energy Co., Ltd |
| | Samcheok Eco Materials Co., Ltd |
| Joint venture company | Daejung Offshore Wind Power Co., Ltd. |
| | Kelar S.A. |
| Other related company | Korea South-East Power Co., Ltd. |
| | Korea Western Power Co., Ltd. |
| | Korea Midland Power Co., Ltd. |
| | Korea East-West Power Co., Ltd. |
| | KEPCO KDN Co., Ltd. |
| | Korea Gas Corporation |
| | Korea Electronic Power Industrial Development Co., Ltd. |
| | Korea Power Exchange |
| | KEPCO KPS Co., Ltd. |
| | KEPCO Engineering & Construction Inc. |
| | Korea Hydro & Nuclear Power Co., Ltd. |
| | Korea Development Bank |
| | DS Power Co., Ltd. |
| | HeeMang Sunlight Power Co., Ltd. |
| | Others |

## 40. Related Party Transactions, Continued

(2) All transactions between KOSPO and its consolidated subsidiaries are eliminated in consolidation, and transactions with related parties other than subsidiaries for the years ended December 31, 2015 and 2014 are as follows:

*In millions of won*

| Related parties | Transaction type | Sales and others | | Purchase and others | |
|---|---|---|---|---|---|
| | | **December 31, 2015** | **December 31, 2014** | **December 31, 2015** | **December 31, 2014** |
| Korea Electric Power Corporation | Power sales and others | ₩ 4,292,772 | 6,304,262 | 39,981 | 103,848 |
| Kelar S.A. | Service revenue | 6,229 | 2,041 | - | - |
| KNH Solar Co., Ltd. | REC purchase | - | - | 3,423 | 3,222 |
| Changjuk Wind Power Co., Ltd. | Service revenue /REC purchase | 742 | 1,919 | 2,531 | 5,062 |
| Taebaek Wind Power Co., Ltd. | Service revenue /REC purchase | 850 | 1,753 | 2,584 | 4,913 |
| Busan Solar Co., Ltd. | REC purchase | - | - | 2,851 | 3,008 |
| KS Solar Co., Ltd. | REC purchase | - | - | 4,276 | 1,503 |
| Korea Power Engineering Co. Ltd. | Miscellaneous income/ Repairing expenses and others | 1,743 | 1,239 | 3,241 | 2,320 |
| Korea South-East Power Co., Ltd. | Miscellaneous income/ Interest expenses and others | 28 | 14 | - | 27 |
| Korea East-West Power Co., Ltd. | Disposal of inventories /Interest expenses and others | 9,589 | 8 | - | 19 |
| Korea Midland Power Co., Ltd. | Miscellaneous income/ loss and others | 28 | - | 26 | 10 |
| Korea Western Power Co., Ltd. | Rental income/ Rental expense and others | 983 | 1,168 | 1,742 | 2,149 |
| Korea Electronic Power Industrial Development Co., Ltd. | Rental income/ Service cost and others | 210 | - | 31,699 | 25,077 |
| KEPCO KDN Co., Ltd. | Repairing expenses and others | - | - | 15,556 | 10,455 |
| KEPCO KPS Co., Ltd. | Rental income/ Repairing expenses and others | 448 | 516 | 83,941 | 71,560 |
| Korea Gas Corporation | Miscellaneous income/ LNG purchase | 3,262 | - | 1,589,790 | 3,617,360 |
| Korea Power Exchange | Miscellaneous income/Power trading fee | - | - | 4,225 | 4,855 |
| KEPCO Engineering & Construction Inc. | Service cost and others | - | - | 5,606 | 13,733 |
| | | ₩ 4,316,884 | 6,312,920 | 1,791,472 | 3,869,121 |

## 40. Related Party Transactions, Continued

(3) Receivables and payables arising from related party transactions as of December 31, 2015 and December 31, 2014 are as follows:

(i) As of December 31, 2015

*In millions of won*

| Related parties | Transaction type | | Receivables | Payables |
|---|---|---|---|---|
| Korea Electric Power Corporation | Trade receivables | ₩ | 330,444 | - |
| | Non-trade receivables | | 99,889 | - |
| | Other payables | | - | 728 |
| Changjuk Wind Power Co., Ltd. | Trade receivables | | 153 | - |
| Taebaek Wind Power Co., Ltd. | Trade receivables | | 147 | - |
| Busan Solar Co., Ltd. | Trade payables | | - | 208 |
| KS Solar Co., Ltd. | Other payables | | - | 281 |
| Korea South-East Power Co., Ltd. | Other payables | | - | 54 |
| Korea East-West Power Co., Ltd. | Non-trade receivables | | 340 | - |
| | Other payables | | - | 107 |
| Korea Midland Power Co., Ltd. | Other payables | | - | 107 |
| Korea Western Power Co., Ltd. | Non-trade receivables | | 83 | - |
| | Other payables | | - | 689 |
| Korea Electronic Power Industrial Development Co., Ltd. | Other payables | | - | 698 |
| KEPCO KDN Co., Ltd. | Other payables | | - | 292 |
| KEPCO KPS Co., Ltd. | Other payables | | - | 3,331 |
| Korea Power Exchange | Other payables | | - | 2 |
| Korea Gas Corporation | Trade payables | | - | 18,545 |
| | | ₩ | 431,056 | 25,042 |

(ii) As of December 31, 2014

*In millions of won*

| Related parties | Transaction type | | Receivables | Payables |
|---|---|---|---|---|
| Korea Electric Power Corporation | Trade receivables | ₩ | 486,129 | - |
| | Non-trade receivables | | 61,251 | - |
| | Other payables | | - | 2,559 |
| Changjuk Wind Power Co., Ltd. | Trade receivables | | 93 | - |
| Taebaek Wind Power Co., Ltd. | Trade receivables | | 104 | - |
| Korea Power Engineering Service Co., Ltd. | Other payables | | - | 447 |
| Korea South-East Power Co., Ltd. | Other payables | | - | 19 |
| Korea Western Power Co., Ltd. | Non-trade receivables | | 191 | - |
| | Other payables | | - | 36 |
| KEPCO Engineering & Construction Company, Inc | Other payables | | - | 1,665 |
| Korea Electronic Power Industrial Development Co., Ltd. | Other payables | | - | 86 |
| KEPCO KDN Co., Ltd. | Other payables | | - | 147 |
| KEPCO KPS Co., Ltd. | Other payables | | - | 64 |
| Korea Power Exchange | Other payables | | - | 2 |
| Korea Gas Corporation | Trade Payables | | - | 311,223 |
| | | ₩ | 547,768 | 316,248 |

## 40. Related Party Transactions, Continued

(4) Fund transactions with related parties for the year ended December 31, 2015 are as follows:

| *In millions of won* | Lender | Type | | Beginning balance | Repayment | Ending balance |
|---|---|---|---|---|---|---|
| Other related company | Korea Development Bank | Foreign short-term borrowings | ₩ | 8,618 | (8,618) | - |

(5) Guarantees and pledged assets provided to related parties as of December 31, 2015 are as follows:

1) Provided guarantees

*In thousands of usd*

| Primary guarantor | Received Company | Type of guarantees | | Credit limit | Guarantee |
|---|---|---|---|---|---|
| Korea Southern Power Co., Ltd. | Kelar S.A | Guarantees for supplemental funding | $ | 13,000 | KEB Hana Bank |
| | | | | | SMBC, MIZUHO |
| | | | | | Bank of Tokyo-Mitsubishi UFJ, Ltd. |
| | | | | 39,000 | Natixis |
| | | Debt guarantees | | 26,000 | BANCO SANTANDER-CHILE |
| | | | | 106,600 | SMBC, MIZUHO |

2) Pledged assets

*In millions of won*

| Primary guarantor | Secondary guarantor | Type of guarantees | | Book Value | Guarantee |
|---|---|---|---|---|---|
| Korea Southern Power Co., Ltd. | Daegu Green Power Co., Ltd. | Pledged money invested | ₩ | 76,193 | KEB Hana Bank |
| | | | | | Kookmin bank |
| | | | | | Korea Development Bank |
| | Daeryun Power Co., Ltd. | Pledged money invested | | 25,477 | Daewoo securities co., ltd. and others |
| | Changjuk Wind Power Co., Ltd. | Pledged money invested | | 3,801 | Woori bank, Shinhan bank |
| | PyeongChang Wind Power Co., Ltd. | Pledged money invested | | 3,875 | Woori bank, Shinhan bank |
| | KNH Solar Co., Ltd. | Pledged money invested | | 1,296 | Shinhan bank Kyobo life insurance co., Ltd. |
| | Busan Solar Co., Ltd. | Pledged money invested | | 793 | Consus asset management co., Ltd. |
| | KS Solar Co., Ltd. | Pledged money invested | | 637 | Shinhan capital |
| | DS Power Co., Ltd. | Pledged money invested | | 2,900 | Korea Development Bank Daewoo securities co., Ltd. |

## 40. Related Party Transactions, Continued

(5) Guarantees and pledged assets provided to related parties as of December 31, 2015 are as follows, Continued:

3) Guarantees for supplemental funding, (etc.)

① Daegu Green Power Co., Ltd. is currently undergoing an energy supply business project and has obtained necessary loans from financial institutions. If Daegu Green Power Co., Ltd.'s reserve balance for the repayment of principal and interest is insufficient based on the loan agreement, each investor in Daegu Green Power Co., Ltd., including the Group, is obligated to provide financial support by way of additional investment or subordinated loan to the extent of ₩90 billion, based on each investor's proportionate investment.

In addition, the Group has the obligation to provide financial support if the project cost exceeds the total amount of committed investment and long-term debt commitments, and if expenditures on the long term manufacturing service contract exceed the operating budget.

The Group is responsible for the management of Daegu Green Power Co., Ltd. The Group is obligated to raise funds by way of subordinated loan capital in case maintenance and repair costs in relation to operations exceed the operating budget.

② Taebaek Wind Power Co., Ltd. has been promoting the wind power plant construction business in Samcheok and Taebaek city and has received loan funds from financial institutions. If the reserve balances for repayment of principal and interest based on the loan agreements are insufficient, each investor in Taebaek Wind Power Co., Ltd., including the Group, has to provide financial support by way of a subordinated loan to the extent of ₩1 billion a year, based on each investor's proportionate investment.

③ Daeryun Power Co., Ltd. is currently constructing a wind power plant facility in YangJu Okjung, HeaChun, which is financed by financial institutions.

Each investor in Daeryun Power Co., Ltd., including the Group, is obligated to provide funds by way of additional investment or subordinated loan to the extent of W8 billion, based on each investor's proportionate investment, if excess investment costs occur when combined heat and power generation plants or related plants are in construction, or the reserve balance for investment is insufficient due to a change in a schedule or an influx of construction costs, or benefit of time is forfeited. Other investors have the obligation to pay acquisition costs of dissenting investors if Daeryun Power Co., Ltd. merges.

The Daeryun Power's shareholders hold call options to purchase the common stocks which were converted from the subordinated loan commitments. On the other hand, financial investors hold put options to sell the shares to Daeryun Power's shareholders. If the put options are not exercised until the expiration date, the put options are deemed exercised on that date. Therefore, the Group is deemed to have acquired the common stocks amounting to ₩18,645 million converted from subordinated loan commitments.

④ Changjuk Wind Power Co., Ltd. is currently constructing a wind power plant facility in Taebaek and the Group has financed the project through loans from financial institutions. Each investor in Changjuk Wind Power Co., Ltd., including the Group, is obligated to provide funds by way of a subordinated loan to the extent of ₩300 million a year, based on each investor's proportionate investment if a cash shortage for repayment of principal and interest based on the loan agreement occurs.

## 40. Related Party Transactions, Continued

(5) Guarantees and pledged assets provided to related parties as of December 31, 2015 are as follows, Continued:

3) Guarantees for supplemental funding, (etc), Continued

⑤ KNH Solar Co., Ltd. has obtained loans from financial institutions for the construction of a solar power plant and the generation and sale of electricity. Each investor, including the Group, is obligated to fulfill the obligation owed by KNH Solar Co., Ltd. based on each investor's proportionate investment if construction investors of KNH Solar Co., Ltd. do not fulfill their obligations that guarantee the average electricity supply per day and secure business land.

⑥ DS Power Co., Ltd. is currently conducting an energy supply business project and has obtained necessary loans from financial institutions. If the excess investment costs occur, the Group is obligated to provide funds by way of subordinated loan based on each investor's proportionate investment in accordance of the loan agreement. Also, investors including the Group have to compensate for damages if construction is not completed within the period.

⑦ PyeongChang Wind Power Co., Ltd. is currently conducting an energy supply business project and has obtained necessary loans from financial institutions. If the excess investment costs occur, investors are additional investment are obligated to provide funds by way of subordinated loan based on each investor's proportionate investment in accordance with the loan agreement. If PyeongChang Wind Power Co., Ltd. enters into an O&M agreement with Korea Power Engineering Co., Ltd. which is an associate company of the Group, the Group is required to provide a performance guarantee for the contract.

(6) The salaries and other compensations to the key members of management for the years ended December 31, 2015 and 2014 are as follows:

*In millions of won*

| Type | Division | | December 31, 2015 | December 31, 2014 |
|---|---|---|---|---|
| Salaries | Managing Director Other | ₩ | 404 | 534 |
| Retirement and severance benefits | Managing Director Other | | 17 | 67 |
| | | ₩ | 421 | 601 |

## 41. Non-cash Transactions

Significant non-cash transactions for years ended December 31, 2015 and 2014 are as follows:

| *In millions of won* | December 31, 2015 | December 31, 2014 |
|---|---|---|
| Reclassification of long-term borrowings to current portion | 566 | 566 |
| Reclassification of long-term debentures to current portion | 479,661 | 100,000 |
| Reclassification of construction-in-progress | 911,691 | 539,251 |
| Reclassification of long-term other payables to current portion | 337 | 399 |

## 42. Commitments and Contingencies

(1) Ongoing litigations as of December 31, 2015 and December 31, 2014 are as follows:

| *In millions of won, except number of cases* | Number of cases | | Claim amount | |
|---|---|---|---|---|
| | **December 31, 2015** | **December 31, 2014** | **December 31, 2015** | **December 31, 2014** |
| Ongoing litigations (*) | 21 | 13 | ₩ 46,331 | 44,490 |

(*) The details of ongoing litigations as of December 31, 2015 are as follows:

*In millions of won*

| Courthouse | Plaintiff | Defendant | Contents | Amount of litigation | Progress |
|---|---|---|---|---|---|
| Busan high court | Individuals | KOSPO | Compensation for damage | ₩ 3,695 | Pending |
| Busan high court (*1) | Dae Chang Engineering & Construction, etc. | KOSPO | Cost of construction | 2,281 | Pending |
| Supreme court of Korea (*1) | Nature Fisheries Cooperative Association | KOSPO | Compensation for damage | 3,757 | Pending |
| Seoul high court (*1,2) | Individuals | KOSPO | Wage | 9,649 | Pending |
| Seoul high court (*1,3) | Individuals | KOSPO and 4 Electric Power Corporations | Wage | 19,029 | Pending |
| Supreme court of Korea | KumSung Fisheries Cooperative Association | KOSPO | Compensation for damage | 4,269 | Pending |
| Seoul central district court, etc. (*1) | Individuals | KOSPO, etc. | Compensation for damage, etc. | 3,651 | Pending |

(*1) As of December 31, 2015, the Group recognized ₩14,908 million as provision in reference to the above litigations. However, regarding other litigations except for the litigations with provision, the management predicts that the outcome of the litigations does not have a significant impact on business practice and financial position.

(*2) On January 2015, the Seoul high court ruled that regular bonuses also fall under the category of ordinary wages on the condition that those bonuses are paid regularly and uniformly. So, the management appealed against corresponding decision on February 4, 2015.

(*3) On June 2015, the Seoul central district court ruled that regular bonuses also fall under the category of ordinary wages on the condition that those bonuses are paid regularly and uniformly. So, the management appealed against corresponding decision on July 24, 2015.

(2) There are no guarantees provided to 3rd parties.

## 42. Commitments and Contingencies, Continued

(3) Credit lines provided by financial institutions as of December 31, 2015 are as follows:

*In millions of won, In thousands of usd*

| Description | Financial Institutions | Current | Limit amount | Run amount |
|---|---|---|---|---|
| Commitments on Bank-overdraft | KEB Hana Bank | KRW | 25,000 | - |
| | Nonghyup Bank | KRW | 50,000 | - |
| | Woori Bank | KRW | 10,000 | |
| | Busan Bank | KRW | 10,000 | |
| | Kookmin Bank | KRW | 50,000 | |
| Loan limit | KEB Hana Bank | USD | 40,000 | - |
| | Mizuho Corporate Bank Ltd. | USD | 50,000 | - |
| | BNP Paribas | USD | 40,000 | - |
| | DBS Bank Ltd. | USD | 100,000 | - |
| | The Korea Development Bank | USD | 50,000 | - |
| | Deutsche Bank AG | USD | 50,000 | - |
| | Credit Agricole | USD | 50,000 | - |
| | Export-Import Bank of Korea | USD | 100,000 | |
| | SMBC Bank | USD | 50,000 | - |
| | Societe Generale | USD | 50,000 | - |
| Certification of payment on L/C | KEB Hana Bank | USD | 16,550 | - |
| | Woori Bank | USD | 20,000 | |
| | Nonghyup Bank | USD | 20,000 | - |
| | Shinhan Bank | USD | 50,000 | - |
| | Industrial Bank of Korea | USD | 11,905 | - |
| Limit guarantees | Kookmin Bank | USD | 30,000 | 2,721 |
| | KEB Hana Bank | USD | 2,458 | - |
| | Hongkong&Shanghai Banking Corp. | USD | 40,000 | - |
| Inclusive credit | KEB Hana Bank | KRW | 95,000 | 7,682 |
| Credit card | Busan Bank | KRW | 45 | 2 |
| Others | Nonghyup Bank | KRW | 50,000 | - |
| | Nonghyup Bank | KRW | 5 | - |

(4) As of December 31, 2015, assets provided as collaterals to financial institutions by the Group are follows:

| Guarantor | Guarantee | Type of guarantee | Amount | Description |
|---|---|---|---|---|
| Korea Southern Power Co., Ltd | Shinhan Bank | Shares of KOSPO Youngnam Power Co., Ltd | 25,000 | Collateral for borrowings |

## 42. Commitments and Contingencies, Continued

(5) Details of long-term marine transportation commitments for the safe transportation of bituminous coal as of December 31, 2015 are as follows:

| Company | Marine transportation | Contract periods |
|---|---|---|
| SK Shipping Co, Ltd. | K-Faith Frontier Carrier, etc. | 2009.12 ~ 2024.11 |
| Pan Ocean Co, Ltd. | Pan champion, etc. | 2010.09 ~ 2029.07 |
| SW Shipping Co, Ltd. | Sea Honesty | 2014.04 ~ 2029.03 |
| Korea Line Co, Ltd. | Goonzaran, etc. | 2005.07 ~ 2026.05 |
| Samsun Logix Co, Ltd. | Power Loong | 2007.10 ~ 2017.09 |
| H-LINE., Ltd. | Roberts bank, etc. | 2008.09 ~ 2034.07 |
| Woo Yang Shipping Co., Ltd. | Banders | 2015.06 ~ 2025.05 |
| Hyundai Merchant Marine Co., Ltd. | Undecided | 2016.06 ~ 2034.05 |
| Unico Logistics Co., Ltd. | Undecided | 2016.06 ~ 2028.05 |

(6) Purchase commitments relating to bituminous coal and other raw materials as of December 31, 2015 are as follows:

| Supplier | Contract periods | Amount (thousand tons) |
|---|---|---|
| Australia : | | |
| NCA Marketing Company Pty Ltd | 2015~2016 | 800 |
| BHP Billiton Marketing AG | 2005~2016 | 552 |
| Energy Coal Marketing Asia Pte., Ltd. | 2006~2016 | 1,000 |
| Moolarben Coal Sales Pty., Ltd. | 2009~2027 | 625 |
| Whitehaven Coal Ltd. | 2013~2016 | 540 |
| Trafigura Pte., Ltd. | 2013~2016 | 276 |
| Coal & Allied Operations Pty., Ltd. | 2013~2016 | 276 |
| Macquarie Bank Ltd. | 2013~2018 | 276 |
| Noble Resources International Pte., Ltd. | 2015~2019 | 414 |
| Noble Resources International Pte., Ltd. | 2015~2019 | 414 |
| Trafigura Pte Ltd | 2016~2018 | 552 |
| Russia : | | |
| SUEK AG | 2012 ~ 2017 | 260 |
| Indonesia : | | |
| PT.Kedap Sayaaq | 2013~2028 | 1,000~3,000 |
| PT.Indominco Mandiri | 2004~2016 | 500 |
| PT.Mahakam Sumber Jaya | 2004~2016 | 750 |
| PT.Berau Coal | 2008~2016 | 600 |
| KCH Energy Co., Ltd. | 2013~2016 | 272 |
| KCH Energy Co., Ltd. | 2015~2019 | 240 |
| Gunvor Singapore Pte., Ltd. | 2013~2016 | 272 |
| Trafigura Pte., Ltd. | 2013~2018 | 204 |
| Glencore International AG | 2015~2019 | 320 |
| Glencore International AG | 2015~2019 | 320 |
| AVRA Commodites Pte Ltd | 2015~2020 | 320 |
| Glencore International AG | 2016~2018 | 320 |
| Mercuria Energy Trading Pte Ltd | 2016~2018 | 320 |
| USA : | | |
| Cloud Peak Energy Logistics LLC. | 2011 ~ 2017 | 300 |

## 42. Commitments and Contingencies, Continued

(7) Commitments for acquisition of property, plant and equipment as of December 31, 2015 and 2014 are as follows:

| *In millions of won* | | December 31, 2015 | | December 31, 2014 | |
|---|---|---|---|---|---|
| Description | | Contract | Residual | Contract | Residual |
| Architectural engineering of Samcheok #1, 2 and others | ₩ | 2,768,411 | 249,705 | 2,773,913 | 625,596 |

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