

2023

# Sustainability Report



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# About this report

## Introduction

Sunpower Group presents its seventh Environmental, Social, and Governance ("ESG") report aimed at systematically disclosing the ESG strategies, policies, measures, and results of the Group and its subsidiaries while addressing the expectations and concerns of its stakeholders. This report has been reviewed by the Board of Directors, who individually and jointly assume responsibility for the truthfulness, accuracy, and completeness of the information contained.

## Time Range

This report covers information and data from January 1 to December 31, 2023 (hereinafter referred to as the "Reporting Period"), with some sections addressing performance from previous years.

## Reporting Scope

This report encompasses Sunpower Group and its subsidiaries.

## Basis for Preparation

This report is prepared in accordance with the Sustainability Reporting Guide released by Singapore Exchange Securities Trading Limited ("SGX-ST"). It continues to adhere to globally recognised frameworks and disclosure practices to ensure compliance with global best practices and provide accessible and comparable information. Additionally, the report is prepared in accordance with the GRI Sustainability Reporting Standards (GRI Standards) issued by the Global Sustainability Standards Board ("GSSB"). It also references and aligns to the United Nations Sustainable Development Goals ("SDGs").

## Notes on Definition

For the convenience of expression and reading, "Sunpower Group" is also referred to as "Sunpower", "the Group", and "we" in this report.

## Notes on Data

The information and data presented in this report have been sourced from the Group's official documents, internal statistics, and the relevant public information. Unless stated otherwise, all monetary values in this report are in RMB.

## How to Access this Report

This report is released in electronic format and is available on both the Singapore Exchange website (<https://www.sgx.com>) and our official website (<https://sunpower.listedcompany.com>).

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# Chairman's Statement

As a trailblazer in the circular economy, Sunpower Group is well-positioned to seize opportunities arising from the global energy transition as it strategically expands into clean energy, and consistently contributes to China's national agenda of achieving the Carbon Peak and Carbon Neutrality ("dual carbon") goals. By the end of 2023, we have invested in 11 Green Investment ("GI") projects with an annual group revenue of RMB 3.403 billion in FY2023, securing our position amongst the China Energy Group Top 500 List. Throughout this year, we have remained steadfast in upholding the principle of "profitable environmental protection", ensuring the Group's robust and stable performance while continually advancing towards environmental and social sustainability.

**Pressing onwards, we have fortified the bedrock of our progress.** Sunpower Group, anchored by its holistic approach to organisational advancement, continues to reinforce its governance framework. With an unwavering commitment to upholding high ethical standards, we have further optimised our risk management protocols, maximising the efficacy of our governance efforts. Simultaneously, we have continued to refine our ESG management structure, seamlessly integrating ESG factors into the overarching strategic trajectory and day-to-day operations of the Group. This strategic alignment allows us to effectively address the expectations of various stakeholders and propel the Group's governance standards to new heights.

**Pioneering sustainable practices, we stand as custodians of the environment.** Sunpower Group's long-term strategies and operational focus align with national environmental protection and energy conservation policies. Moreover, we are committed to implementing low-carbon development, environmental stewardship, and ecological preservation in our daily operations. Leveraging a robust environmental management framework, we have initiated organised environmental compliance efforts, rigorously controlled pollutant emissions in line with stringent standards, and effectively enhanced resource utilisation rates. Through a series of technological upgrades and process optimisations, we have achieved a paradigm shift towards green and low-carbon operations. Additionally, we have integrated the governance structure on climate change into our comprehensive governance framework, enabling us to conduct comprehensive assessments of climate risks and opportunities and thus fortify our resilience and adaptability in the face of climate-related challenges.

**Upholding integrity and fostering innovation, we have strengthened our credentials as champions of sustainability.** Sunpower Group, geared towards a green and low-carbon transition in the energy sector, has harnessed patented environmental protection and

energy-saving technologies that are both efficient and generate low emissions to provide economical, reliable, and efficient clean energy solutions. We have consistently worked towards addressing the steam supply needs of industrial parks and heating supply needs of urban residents. Focusing on innovation across three key domains—environmental protection technology, energy-saving technology, and steam transportation—we have empowered downstream enterprises to mitigate emissions, reduce consumption, and transition towards low-carbon operations. Our unwavering commitment to quality excellence, coupled with a dedication to impeccable service, has amplified our competitive edge in the industry, culminating in a strong brand reputation and cultivating long-term trust amongst our clientele.

**Fostering collaboration in earnest, we embrace a brighter future together.** Recognising talent as a cornerstone of organisational success, Sunpower Group has harnessed the synergy of school-enterprise partnerships to cultivate a strong pipeline of high-caliber professionals as well as establish platforms to provide learning opportunities and facilitate employee growth. We safeguard the fundamental rights and interests of our employees, offer diverse channels for them to exchange ideas, and organise a wide array of activities, demonstrating the Group's genuine care for its workforce. Our unwavering commitment to work safety underscores our focus on the occupational safety of employees, as we enhance protective measures and foster a culture of safety consciousness to safeguard the health and well-being of every employee. Through continual refinement of our supplier management framework, we have successfully built a reliable, safe, and sustainable industry ecosystem with our valued partners. Guided by the ethos of "never forgetting the water source when drinking water", we have spearheaded a myriad of philanthropic initiatives, championed local green programmes, and fulfilled our commitment to social responsibility, thus fostering a green, civilized, harmonious, and prosperous community.

We continue to stride steadfastly towards our goals. Looking ahead, Sunpower Group remains resolute in its strategic goal of becoming a leading supplier of clean steam and industrial services. We stand poised to be a pioneer in the fields of the dual carbon agenda and ESG practices. Harnessing our advantage in energy conservation and emission reduction, we continue to advance green and low-carbon socio-economic development and embark towards a future of mutual success and shared prosperity together with our stakeholders.

# About Sunpower Group

## Corporate Profile

Headquartered in Nanjing, Jiangsu Province, Sunpower Group Ltd. was founded in 1997 and listed on the Singapore Exchange (SGX stock code: 5GD.SI) in 2005. Guided by a commitment to Green Investments, the Group firmly seizes opportunities arising from the energy transition, we strategically expand into the clean steam sector, aiming to provide cost-effective, reliable, and efficient clean steam and industrial services to our users that reduce pollutant emissions and safeguard the ecological environment. Furthermore, we continuously explore methods for recycling materials and implementing multi-level energy utilisation, striving to emerge as an integrated service provider that applies the circular economy model and tiered energy utilisation approach.

At Sunpower Group, we are dedicated to be the core element of circular economy and sustainable energy practices within the circular economy industrial park. We focus on four key areas: smog control, energy-saving and emission-reduction initiatives, circular economy, and sustainable development. Strategically, we develop in the following areas, such as centralised heating, combined heat and power generation, clean coal technologies, application of renewable energies such as biomass as feedstock, urban and industrial sludge treatment, comprehensive solid waste management, and to explore other clean energy and energy-efficient environmental technologies in the future.

Sunpower Group is dedicated to the principles of reuse and recycling, promoting a circular economy within industrial parks, and enhancing the industrial ecosystem. We have established a shared platform for direct energy supply and resource utilisation among enterprises, making it easier for materials to be recycled, energy to be utilised at multiple levels, and waste to be comprehensively managed. Additionally, we are committed to reducing production costs for downstream enterprises, and improving resource and energy efficiency.

The Group continues to expand its business presence. As of the end of the Reporting Period, it essentially established a strategic development layout centered around Nanjing, with the Yangtze River Delta as its core, covering the Pearl River Delta and the Bohai Economic Rim.



History of Sunpower Group

- 1997** • Date of incorporation.
- 1998** • Obtained the first national patent and participated in the National West-to-East Gas Transmission Project.
- 2000** • Became a designated supplier of "three barrels of oil" in China and started supplying high-end equipment to BASF.
- 2003** • Developed low-temperature heat rods for frozen soil solidification project to overcome the key difficulties of opening Qinghai-Tibet Railway in China.
- 2005** • Listed on the Singapore Stock Exchange (SGX) Promoted internationalisation strategies.
- 2006** • First China Standard Innovation Contribution Award; Construction of China's first zero liquid discharge device for high concentration saline wastewater (ZLD Project).
- 2007** • Established an Engineering and Technology Research Centre of High-efficiency Industrial Energy-saving Equipment in Jiangsu Province.
- 2008** • Signed a strategic cooperation agreement with the Chinese Academy of Sciences on Permafrost Engineering and established the Nanjing Permafrost Engineering Centre of the Chinese Academy of Sciences; Sinopec's strategic partner for export integration.
- 2009** • Expanded global market footprint to more than 20 countries.
- 2010** • The National Standard for Special Tubes for High Efficiency Heat Exchangers was formally issued and implemented.
- 2011** • The National Standards of Heat Rod and Coreless Heat Pipe were approved and promulgated. Breakthrough in the Middle East market with products exported to Saudi Arabia.
- 2012** • Recognised as a well-known trademark in China. Signed Asia Regional Strategic Cooperation Agreement with Germany's BASF.
- 2014** • Achieved the localisation of LNG gasifier equipment. Undertook the largest coal-to-olefin project in the world.
- 2015** • Established the Clean Energy segment to formally enter the Green Investments business. Formally became one of Shell's three global strategic suppliers of flare system Enterprise Framework Agreement ("EFA") in Asia.

- 2016** • Phased achievements in GI business and three major projects were put into construction.
- 2017** • CDH and DCP Capital completed the first round of investment in US\$110 million of the Company's convertible bonds ("CBs") to help achieve development of GI business. Successful launch of initial GI project portfolio, with four projects put into operation and five projects under construction. Shenhua Shaanxi Methanol Processing Project, contracted by Sunpower Environmental Protection Engineering Services General Contract, won the "National Quality Engineering Award".
- 2018** • CDH and DCP Capital committed to a second round of investment of up to US\$70 million in CBs, of which US\$20 million of CBs have been issued. The Manufacturing & Services ("M&S") segment exceeded RMB 2 billion in on-hand orders. GI projects achieved scale, with seven operational projects and five projects under construction. Won the first prize for scientific and technological progress from Sinopec.
- 2019** • Attained the inaugural Deloitte Best Managed Companies of China award. First ever entry into China Energy Group Top 500 List and ranked 354th. M&A of Suyuan Plant. Eight GI investment projects in operation.
- 2020** • Expanded GI portfolio with nine projects in operation. Shantou Project phase 1 and part of Xintai Zhengda Project's new facility moved from trial production to commercial operation phase. Construction started for two new GI projects, Tongshan Project and Shanxi Xinjiang Project. Announced its plans to divest the M&S business on 31 December 2020. FY2020 revenue rose 12.6% YoY to record RMB 4,058.8 million while PATMI hit record of RMB 377.0 million.
- 2021** • The disposal of the M&S business was completed and a special dividend of RMB 1.1627 per share was paid from the majority of the net proceeds. Built up sizeable GI project portfolio of 11 projects, with 9 operational, 1 in trial production and 1 under construction. Steam supply to new customer Sanli started in May 2021 following the completion of the pipeline connection from Changrun Project. Xinyuan Plant completed the city heating network system for the new concession area in Jimo International Trade Park.
- 2022** • GI project portfolio of 11 projects, with 10 projects in operation and 1 project essentially completed and expected to start trial operation in 2023. Phase 1 and Phase 2 of Shantou Project are in commercial operation. Xinjiang Project met the requirements of trial operation. Tongshan Project completed the construction of pipeline network and officially supplied steam and heating. Xinyuan Plant started providing heating to new concession areas in Jimo Trade Park. Xintai Project successfully completed the extension of distribution pipeline to supply industrial steam to a major customer's Phase 3. Phase 2 expansion of the pipeline network of Jining Project commenced construction in 2022.
- 2023** • The Group ranked 432nd in the Chinese Energy Group Top 500 List. On November 20, 2023, Changrun Project and Shantou Project obtained the environmental management system and occupational health and safety management system certification from China Quality Mark Certification Group. Currently, the Group's GI project portfolio comprises 11 operational projects.

## Honours and Awards

In 2023, Sunpower Group garnered praise from government entities and clients alike, receiving numerous awards and letters of appreciation due to its strong capabilities and excellent service. This recognition not only motivates us but also reinforces our sense of responsibility. The Group remains committed to upholding the philosophy of "profitable environmental protection," dedicating itself wholeheartedly to serving clients, ensuring their satisfaction, and earning the trust of the government. With unwavering determination, we strive to pioneer new paths and embark on the next chapter together.



Honours and awards

China Institute of Energy Economics  
**2023 China Energy Group Top 500**

Nanjing Joint Conference Office for Promotion of Headquarters Economic Development  
**Nanjing Municipal Enterprise Headquarters 2023**

Nanjing Tripartite Committee for Coordinating Labour Relations  
**Nanjing Model Enterprise in Harmonious Labor Relations**

Nanjing Jiangning District General Labour Union  
**Home of Exemplary Workers in Jiangning District, Nanjing**

Nanjing Jiangning District Tripartite Committee for Coordinating Labour Relations  
**Nanjing Harmonious Enterprise in Harmonious Labour Relations**

Department of Industry and Information Technology of Guangdong Province  
**Innovative Small and Medium Enterprise**

Nanjing Jiangning District General Labour Union  
**Exemplary Unit for Collective Bargaining in Jiangning District, Nanjing**

Health Commission of Hebei Province, Department of Industry and Information Technology of Hebei Province, Department of Ecology and Environment of Hebei Province, Hebei General Labor Union, Hebei Provincial Committee of the Communist Youth League, and Hebei Women's Federation  
**Healthy Enterprise**

Thermal Power Industry Committee of China Energy Conservation Association  
**Exemplary Unit for Green and Low-carbon Development in the Thermal Power Industry during the 14th Five-Year Plan Period**

Hebei General Labour Union  
**Province Outstanding Proposal from Employee Representative in "Synergy Promotes Development" for 2022**

提案名称	提案所在单位	提案人
经济管理及节能降耗合理化建议征集	河北长通环保科技有限公司	张俊杰

Non-Public Economic Organisations and Social Organisations Working Committee of the Gaoyang County Committee of the Communist Party of China  
**Certificate of Honour in Flood Control and Disaster Relief**

Zhangjiagang Charity Federation  
**Certificate of Donation for "Love Fills Zhangjiagang City"**

Department of Ecology and Environment of Anhui Province  
**Anhui Province Integrity Enterprise in Corporate Environmental Credit Rating for 2021**

Xinfu Street Working Committee of the Communist Party of China  
**Exemplary Unit for Contributing to Economic and Social Development for 2022**

Changshu Charity Federation (Foundation)  
**Certificate of Donation for Rural Public Health Aid Programme**

# 01.ESG Management

SDGs



GRI metrics

GRI 2, GRI 3

At Sunpower Group, we steadfastly adhere to the principles of sustainable development, integrating ESG factors into our daily decision-making and operational management. We focused on enhancing our ESG management structure, bolstering corporate governance transparency, and actively addressing the concerns and expectations of all stakeholders. Additionally, we identified material ESG topics to ensure robust business operations and the steady implementation of our sustainable goals.

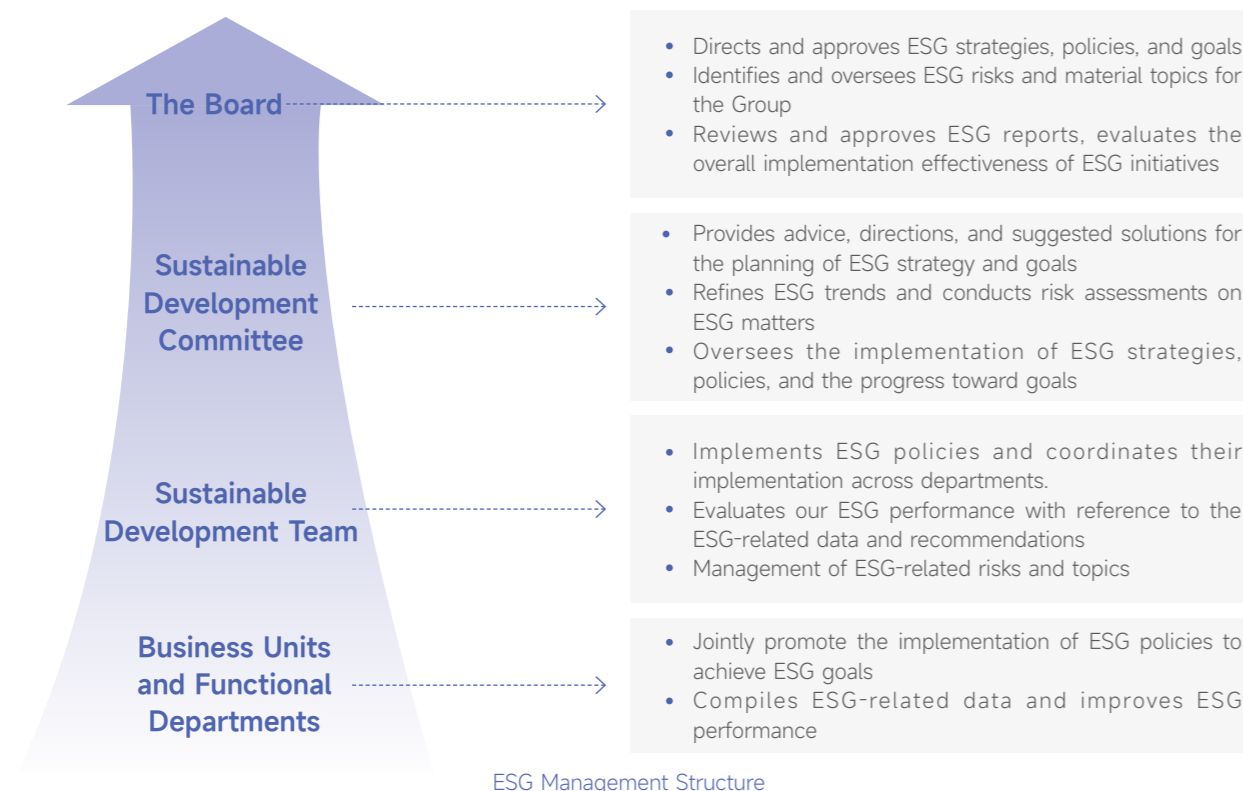


# 1.1 ESG Management Structure

Sunpower Group has established a clear and efficient ESG management structure characterised by accountability and coordination with effective management procedures put in place. Through this framework, the Group incorporates the concept of sustainability into its business strategy and operational practices.

The ESG management structure comprises the Board of Directors, the Sustainable Development Committee, the Sustainable Development Team, and functional departments. Together, they drive the efficient implementation of ESG management initiatives within the Group and ensure the effective execution of ESG policies and measures. The Board of Directors, as the highest governing body responsible for ESG governance, oversees decision-making and approval of the Group's ESG strategies, policies, and objectives. Additionally, it reviews ESG performance, progress towards key targets, and information disclosure. The Sustainable Development Committee, comprising the Board of Directors and senior executives, acts as a supervisory and coordinating entity and assists the Board of Directors in formulating the Group's ESG strategy and objectives. The Committee supervises the specific implementation progress of ESG matters and regularly report updates to the Board. Under this Committee, the Sustainable Development Team, comprising executives and heads from diverse functional departments, executes ESG activities and ensures the implementation of the sustainable development strategy across the Group.

Sunpower Group encourages all employees, including senior management and department heads, to actively engage in the journey towards sustainable development management. To ensure the effective implementation of various measures, we integrate key performance indicators ("KPIs") related to the management of sustainable development, such as compliance management, occupational health and safety, environmental responsibility, labour management, and climate change, into individual performance evaluations. This ensures the effectiveness of our management practices.



# 1.2 Statement of the Board of Directors

## Scope of Responsibility

As the highest decision-making body overseeing ESG efforts within the Group, the Board of Directors is responsible for formulating the Group's sustainable development strategy, approving ESG policies and objectives, and overseeing all matters pertaining to sustainable development. The Board supervises the effectiveness of sustainability management methods and reviews the progress of the Group's ESG objectives, bearing primary responsibility for the Group's ESG performance. Additionally, the Board authorises the Sustainable Development Committee to assist in supervising the implementation of ESG strategies and advancing the Group's sustainability process.

## ESG Risk Management

The Board of Directors maintains a continuous focus on ESG risks and material topics relevant to the Group's business operations and oversees ESG matters through its Sustainable Development Committee. The Committee consistently identifies and assesses all relevant ESG risks associated with the Group's operations, integrates them into the risk management system for comprehensive monitoring and ultimately reports the results of risk management to the Board.

## Management of Material Topics

Sunpower Group promptly identifies, assesses, and tracks the key ESG concerns of stakeholders and responds to their expectations through effective communication channels. On an annual basis, the Board of Directors engages in the assessment, prioritisation, and final confirmation of material topics, thereby determining those crucial to the Group's development and forming a materiality matrix. This process further clarifies the direction and focus of ESG management.

## Daily Execution and Participation

The Board of Directors actively participates in the daily oversight of ESG-related matters to ensure that management integrates ESG factors into day-to-day operations and strategic decisions. During the Reporting Period, the Board engaged in discussions to identify material topics for the Group and approved both the materiality matrix and ESG management priorities. In the review of this year's ESG report, the Board evaluated the Group's management of ESG issues and progress toward goals, offering recommendations for improvement and ultimately endorsing the publication of this ESG report.

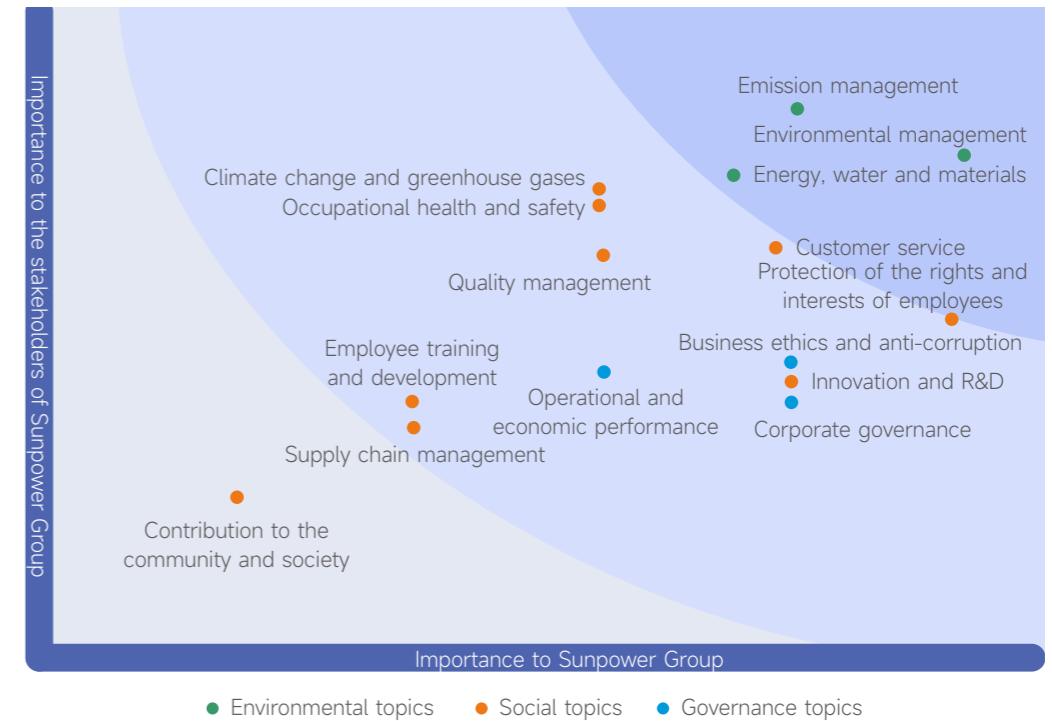
Additionally, the Board emphasises the importance of enhancing its understanding of ESG, and continuously reinforces its comprehension of ESG domains through participating in sustainable development training, which ensures a strong foundation for more scientific decision-making advice.



# 1.3 Assessment of Material Topics

Sunpower Group fully recognises the importance of environmental, social, and economic impacts on both the Group and its stakeholders and consistently identifies and evaluates material ESG topics pertinent to the Group. We have compiled a repository of ESG material topics for 2023 through peer benchmarking analysis and stakeholder surveys, taking into account our history, future positioning, regulatory requirements of the Singapore Exchange and international reporting standards. Adhering to the double materiality principle, we conducted impact analysis and prioritised these material topics, resulting in the formation of a materiality matrix, which was then approved by the Board of Directors.

To further respond to stakeholders' expectations and to showcase the Group's performance across various ESG topics, Sunpower has included the theme of "Innovation and R&D" in its 2023 ESG report. This report will primarily focus on disclosing the progress of management practices for each topic.



Identification and Assessment of Material Topics



# 1.4 ESG Goals and Commitments

Sunpower Group is committed to addressing its material topics and setting targeted management objectives for each ESG topic to drive the Group's ESG efforts forward. In this report, we also clearly showcase the Group's contributions across various topics and support stakeholders in overseeing our continuous improvement in sustainability performance.

## Environment

Material Topics	Goals and Commitments
<b>Environmental Management</b>	<ul style="list-style-type: none"> <li>The Group aims to continuously improve the coverage of environmental management system certification.</li> <li>The Group strives to strengthen environmental management responsibilities, establish a sound environmental accountability system, rigorously manage environmental facilities, implement compliance reviews, and ensure environmental compliance.</li> <li>The Group is committed to conducting awareness campaigns and training sessions on environmental protection and low-carbon initiatives, and enhancing employee awareness of environmental protection.</li> </ul>
<b>Emission Management</b>	<ul style="list-style-type: none"> <li>The Group is dedicated to strengthening the management of wastewater, exhaust gas, solid waste, and noise in accordance with national and local environmental protection policies, and ensuring up-to-standard emissions.</li> <li>The target for 2023 is to reduce the wastewater discharge rate by 1% compared to 2022, and the target has been achieved.</li> <li>The target for 2024 is that the wastewater discharge rate will not increase further compared to 2023.</li> </ul>
<b>Energy, Water and Materials</b>	<ul style="list-style-type: none"> <li>The Group aims to improve the comprehensive utilisation rate of energy and water resources through facility upgrades, operational adjustments, new technology adoption, and innovation.</li> <li>The Group is committed to promoting green office practices by adopting online communication methods to reduce the consumption of office supplies.</li> <li>The target for 2023 is to reduce the water consumption intensity by 1% compared to 2022, and the target has been achieved.</li> <li>The target for 2024 is to reduce the water consumption intensity (measured in tons of water consumption per ton of steam sold) by 1% compared to 2023.</li> </ul>
<b>Climate Change and Greenhouse Gases</b>	<ul style="list-style-type: none"> <li>The Group aims to phase out the use of outdated extraction condensing turbines and focus on improving the thermal efficiency of turbines. By ensuring the turbines operate efficiently through technological innovation and maintenance, the Group is committed to increasing steam output per ton of materials, reducing consumption of standard coal per ton of steam, and reducing carbon emissions per ton of steam.</li> <li>The Group plans to keep the carbon dioxide emission for steam and heating supply below 0.1105 tCO<sub>2</sub>/GJ and that for electricity supply below 0.9903 tCO<sub>2</sub>/MWh.</li> </ul>

## Social

Material Topics	Goals and Commitments
<b>Innovation and R&amp;D</b>	<ul style="list-style-type: none"> <li>The Group is committed to proactively promoting energy transition and the circular economy, and continuously exploring and consolidating innovative environmental technologies. To reduce the use of fossil fuels, it also pledges to construct more boilers using agricultural and forestry waste and to install such a boiler in 2024.</li> <li>The Group strives to apply for and obtain more intellectual property rights, and optimise its internal R&amp;D framework.</li> </ul>
<b>Quality Management</b>	<ul style="list-style-type: none"> <li>The Group is committed to standardising operational processes to keep the pipeline damage rate below 2.3% and ensuring safe and steady equipment operation.</li> <li>The Group aims to standardise operating procedures and ensure the safe and stable operation of the production system by establishing and implementing equipment maintenance plans.</li> <li>The Group pledges to strictly control product quality to avoid customer complaints due to product defects.</li> </ul>
<b>Customer Service</b>	<ul style="list-style-type: none"> <li>The Group is dedicated to providing excellent customer service and assisting customers with initiatives to save energy and reduce consumption.</li> <li>The Group strives to improve its service provision and promptly handle customer complaints to achieve the goal of 100% complaint response rate.</li> </ul>
<b>Protection of the Rights and Interests of Employees</b>	<ul style="list-style-type: none"> <li>The Group aims to enhance policies and systems on human resources management and conduct regular audits to ensure compliance and effectiveness of management measures.</li> <li>The Group is dedicated ensuring all employees have equal opportunities in recruitment, career development, and promotion.</li> <li>The Group is committed to improving the compensation and benefits system, listening to employee feedback, and continuously increasing employee satisfaction.</li> </ul>
<b>Staff Training and Development</b>	<ul style="list-style-type: none"> <li>The Group plans to improve the employee training and development system, with annual plans for targeted career training to help employees enhance their skills and performance.</li> <li>The Group is committed to establishing clear and transparent promotion pathways, and fairly assessing employee performance and promotion outcomes to ensure fair talent selection practices.</li> </ul>
<b>Occupational Health and Safety</b>	<ul style="list-style-type: none"> <li>The Group is committed to implement national laws and regulations on workplace safety and strives to foster a safe work environment.</li> <li>The Group aims to continuously improve the coverage of occupational health and safety management system certifications.</li> <li>The Group aims to ensure that no work-related deaths or occupational disease incidents occur and maintains a 100% occupational health examination rate for employees.</li> </ul>
<b>Supply Chain Management</b>	<ul style="list-style-type: none"> <li>The Group aims to continuously optimise supplier management mechanisms to ensure the safe and high-quality supply of fuels and maintain supply chain stability.</li> <li>The Group is committed to improving the sustainable supply chain management system and focusing on supplier ESG performance during the entry and assessment stages.</li> <li>The Group endeavours to strengthen supplier integrity management and incorporate anti-commercial bribery clauses into all types of contracts.</li> </ul>
<b>Contribution to the Community and Society</b>	<ul style="list-style-type: none"> <li>The Group is committed to maintain open communication channels with government agencies and non-governmental organisations and actively participates in the development of its surrounding communities.</li> </ul>

## Governance

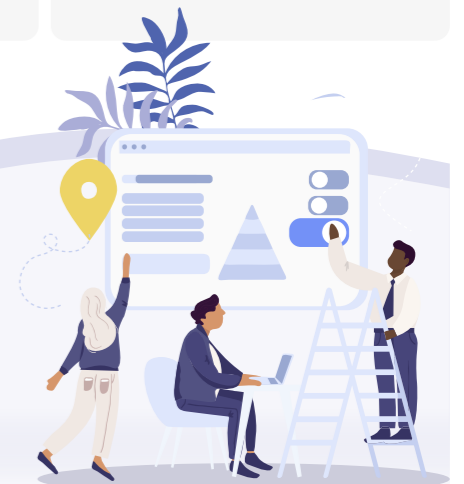
Material Topics	Goals and Commitments
<b>Operational and Economic Performance</b>	<ul style="list-style-type: none"> <li>The Group is committed to ensuring stable operation while continuously improving economic benefits.</li> </ul>
<b>Corporate Governance</b>	<ul style="list-style-type: none"> <li>The Group strives to establish smooth and effective communication channels for its shareholders, protect their rights and interests, and enhance shareholders' value.</li> <li>The Group aims to enhance its ESG management system to integrate the ESG concept into business operations.</li> <li>The Group plans to convene the Risk Management Committee meeting annually to control and prevent major risks.</li> </ul>
<b>Business Ethics and Anti-corruption</b>	<ul style="list-style-type: none"> <li>The Group aims to maintain a 100% signing rate for the Commitment Letter of Integrity Performance among employees.</li> <li>The Group is committed to conducting awareness-raising campaigns and training sessions on anti-corruption annually.</li> </ul>

# 1.5 Stakeholder Engagement

Sunpower Group is committed to fostering long-term, positive relationships with stakeholders through open dialogue, collaboration, and proactive responses to their expectations. We have established regular communication mechanisms through various channels, including our official website, WeChat official account, email, and questionnaires, to interact with stakeholders and gather their feedback on our ESG management practices. Stakeholder concerns are considered significant factors in shaping our ESG strategies and objectives, prompting us to take timely actions to strengthen our internal ESG management system while meeting stakeholders' reasonable demands.

Stakeholders	Topics of Concern	Communication and Engagement
<b>Government/regulators</b>	<ul style="list-style-type: none"> <li>Corporate governance</li> <li>Business ethics and anti-corruption</li> <li>Climate change and greenhouse gases</li> </ul>	<ul style="list-style-type: none"> <li>Regular reporting and communication</li> <li>Cooperation with supervision and inspection</li> <li>On-site visit and investigation</li> </ul>
<b>Shareholders/investors</b>	<ul style="list-style-type: none"> <li>Corporate governance</li> <li>Operational and economic performance</li> <li>Energy, water and materials</li> </ul>	<ul style="list-style-type: none"> <li>General meetings of shareholders</li> <li>Formal information disclosure according to the relevant rules</li> <li>Quarterly/semi-annual/annual financial reports</li> <li>Group presentations, non-deal roadshows, and one-on-one meetings as required</li> </ul>
<b>Employees</b>	<ul style="list-style-type: none"> <li>Protection of the rights and interests of employees</li> <li>Occupational health and safety</li> <li>Employee training and development</li> </ul>	<ul style="list-style-type: none"> <li>Employee training</li> <li>Workers' Representative Congress</li> <li>Surveys on employee satisfaction and commitment</li> </ul>

Stakeholders	Topics of Concern	Communication and Engagement
<b>Suppliers/partners</b>	<ul style="list-style-type: none"> <li>Supply chain management</li> <li>Business ethics and anti-corruption</li> </ul>	<ul style="list-style-type: none"> <li>On-site communication</li> <li>Regular inspection</li> </ul>
<b>Customers</b>	<ul style="list-style-type: none"> <li>Customer service</li> <li>Quality management</li> </ul>	<ul style="list-style-type: none"> <li>Official website</li> <li>WeChat official account</li> </ul>
<b>Environment</b>	<ul style="list-style-type: none"> <li>Environmental management</li> <li>Emission management</li> <li>Energy, water and materials</li> <li>Climate change and greenhouse gases</li> </ul>	<ul style="list-style-type: none"> <li>Regular publication of the Sustainability Report according to the relevant rules</li> <li>Disclosure of operational and environmental data</li> </ul>
<b>Community and Society</b>	<ul style="list-style-type: none"> <li>Contribution to the community and society</li> </ul>	<ul style="list-style-type: none"> <li>Charity activities</li> <li>Volunteering activities</li> <li>Social media</li> </ul>



# 02.Environment

## SDGs



## GRI metrics

GRI 3, GRI 201, GRI 302, GRI 303,  
GRI 305, GRI 306

Sunpower Group remains steadfast in its commitment to forge a more environmentally friendly future, with a keen focus on low-carbon development, environmental governance, and ecological protection. As we continuously explore clean energy sources and other green technologies, we are also building a comprehensive environmental management system from within, rigorously promoting environmental compliance, enhancing resource utilisation efficiency, and minimising the negative impact of our operations on the environment. Through the provision of low-carbon products and services, we strive to promote the sustainable development of the value chain.



# 2.1 Environmental Management

Sunpower Group places great importance on environmental management throughout its business operations. By establishing a comprehensive environmental management system, setting environmental management objectives, enhancing internal and external audit and supervision, and regularly conducting relevant training, we perform environmental management activities in an organised manner.

## Governance Structure and Policy

The management team is responsible for overseeing the Group's comprehensive environmental management strategy and ensuring the implementation of environmental policies and improvements in environmental performance. Additionally, the Health, Safety, and Environment ("HSE") Department is tasked with coordinating and guiding various departments in implementing environmental management measures, as well as monitoring and documenting environmental performance in daily operations.

Sunpower Group strictly adheres to all applicable laws and regulations where it operates, including the Environmental Protection Law of the People's Republic of China, the Regulations on the Administration of Environmental Protection Management of Construction Projects, and the Interim Measures on the Environmental Inspection of Completed Construction Projects. We continuously refine our internal environmental protection management policies and systems such as the Management System on Environmental Protection, the CEMS Equipment Management System, the Environmental Protection Equipment Maintenance Regulations, and the Measures for "Three Simultaneities" of Construction Project. Guided by the principle of "giving priority to protection, putting prevention first, and comprehensive management," the Group is committed to ensuring strict compliance with all applicable external laws and regulations, industry standards, industry practices, and internal standards in all operational activities.

## Our Measures

### Environmental Management System

Sunpower Group constructs its environmental management system based on external environmental management standards. Through the establishment and implementation of HSE-management system standards, the Group integrates HSE requirements into its day-to-day business operations and activities. This approach not only enhances the Group's overall management but also plays a crucial role in preventing and reducing environmental pollution. To ensure compliance with emission standards, we conduct regular compliance checks on pollution discharge permits for each unit, conduct internal and external audits, and record and retain inspection results. We promptly urge responsible units to rectify any identified issues. Additionally, in response to environmental pollution incidents, we have developed environmental emergency plans to promptly address them and mitigate their adverse impacts on the environment.



Environmental Management System Certification

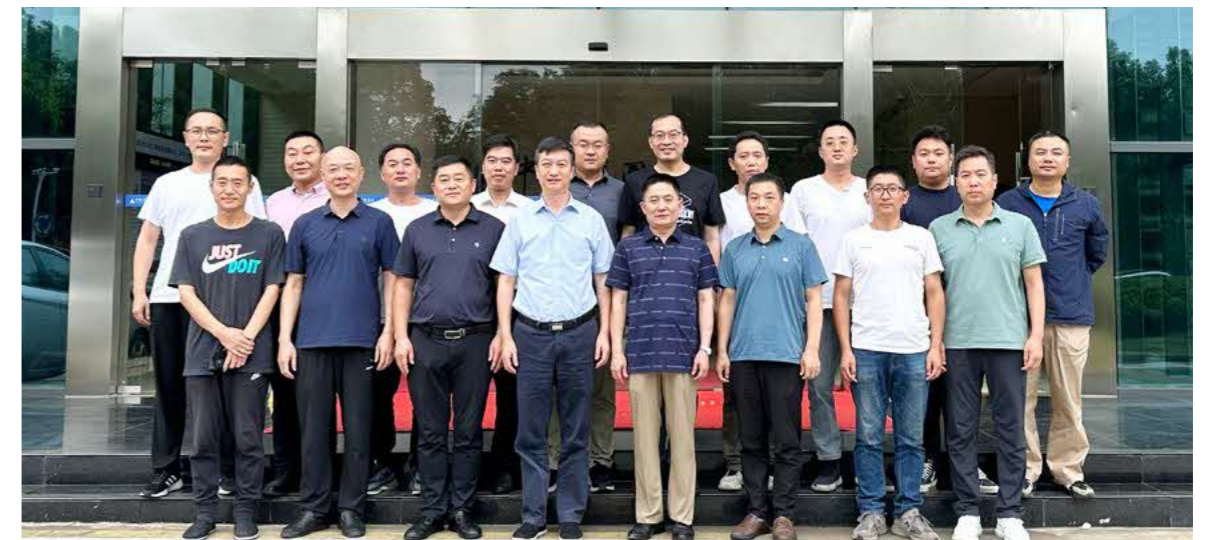
During the Reporting Period, Hebei Changrun Project and Shantou Project obtained their environmental management system certifications.

## Environmental Protection Training

Sunpower Group encourages all employees to engage in environmental management by regularly organising energy conservation and educational activities. These initiatives are designed to heighten the environmental awareness of all staff members and to integrate green and sustainable concepts into their professional and personal lives. To further enhance employees' understanding of environmental protection and improve the overall environmental responsibility within the Group, we conduct training sessions on environmental protection, energy conservation, and emission reduction for employees at all levels, including Board members. Additionally, we provide specialised training for personnel involved in environmental management.

### Specialised Training on Pollutant Discharge Permit Management/Solid Waste and Hazardous Waste Standardised Management

During the reporting period, Sunpower Group participated in specialised training sessions on pollutant discharge permit management/solid waste and hazardous waste standardised management conducted by government agencies. This initiative aimed to enhance employees' professionalism in the field of legalised and compliant pollutant discharge, promote standardised environmental management within the Group, and further advance its commitment to sustainable development.



Participants at Pollutant Discharge Permit Management Training Session

## Performance

In 2023

Operational rate of environmental protection facilities

100%

Up-to-standard pollutant discharge

100%

Administrative penalties related to environmental issues or complaints from surrounding communities

0 administrative penalty or complaint

## 2.2 Emission Management

Sunpower Group is committed to reducing the emission of pollutants. We have established internal systems and control procedures for pollutant management and emission control. We are taking proactive measures to strengthen emission management, reduce emissions, and minimise pollution.

### Governance Structure and Policy

Sunpower Group strictly adheres to applicable laws, regulations, and standards where it operates, including the Atmospheric Pollution Prevention and Control Law of the People's Republic of China, the Water Pollution Prevention and Control Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Solid Waste Pollution, and the National Catalogue of Hazardous Wastes. We continuously optimise our internal emission management systems to ensure compliance. Each project subsidiary develops corresponding standard operating procedures for emission management facilities based on these systems and actual circumstances, aiming to guide and efficiently promote the implementation of respective emission management tasks. Furthermore, we engage professional organisations to conduct regular inspections of emission facilities, ensuring that all emissions are legally disposed of, and pollutants are only released after meeting stringent emission requirements.

### Our Measures

#### Waste Management

Sunpower Group complies with relevant laws and regulations governing the collection, classification, storage, and transportation of various types of waste to prevent environmental pollution and ensure regulatory compliance. To ensure proper waste management and minimise our environmental footprint, both non-hazardous and hazardous waste generated by the Group are sorted and collected on-site. Subsequently, they are entrusted to qualified third-party companies for disposal that meets stringent standards.

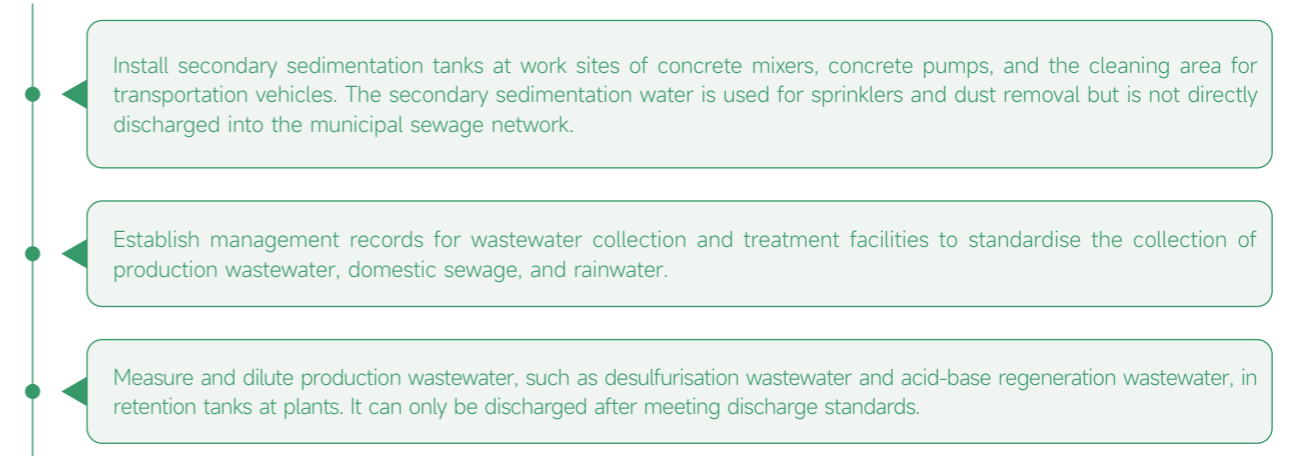
Hazardous waste primarily originates from construction and operational activities within the Group. We have established dedicated storage facilities for hazardous waste and implemented measures such as containment, runoff prevention, leakage prevention, and rain proofing. Additionally, we perform regular maintenance and inspections, promptly conducting repairs or replacements in case of damage or leaks. We also label our storage containers and areas as required by regulations and place warning signs. Furthermore, the Group enlists qualified third parties to dispose of hazardous waste, aiming to minimise pollution risks during the disposal process.

The Group's non-hazardous waste primarily consists of office waste, household waste, construction debris, and general industrial solid waste. To foster resource recycling and reuse, we have established construction waste sorting stations and enclosed household waste recycling facilities to collect and reuse recyclable non-hazardous waste. During the Reporting Period, Sunpower Group assisted the industrial parks in the comprehensive treatment and utilisation of 52,713.83 tons of sludge. Additionally, the 608,686.29 tons of general industrial solid waste generated by the Group were all transported for comprehensive utilisation by qualified third-party organisations.

#### Wastewater Management

Sunpower Group, in its commitment to compliance with emission regulations, endeavours to minimise wastewater discharge to mitigate adverse effects on the surrounding environment. We strictly adhere to all applicable laws and regulations where we operate, implement classified disposal measures, and install secondary sedimentation tanks to ensure the up-to-standard discharge of wastewater after it is treated and meets water quality standards. Furthermore, we aim to further reduce wastewater discharge through initiatives such as equipment upgrades.

Additionally, the Group conducts regular internal inspections and external testing in accordance with the requirements of emission permits. During the Reporting Period, all sewage discharge from Sunpower Group met water quality standards as per the results of internal and external testing.



Measures for Up-to-standard Discharge and Reduction of Wastewater

#### Desulfurisation System Upgrades at Lianshui Project

During the Reporting Period, Lianshui Project detected that the fluids produced by the desulfurisation system had a substantial concentration of ammonia and nitrogen at the critical threshold, potentially clogging the desulfurisation heat exchangers and desulfurisation tower nozzles, which led to decreased efficiency. To effectively address this risk, Sunpower Group installed an additional pre-treatment system. This new system can efficiently reduce the salt content without sending wastewater for external treatment, ensuring the effective operation of equipment while saving on treatment costs.

#### Reverse Osmosis Water Filter System Upgrades at Lianshui Project

During the Reporting Period, Lianshui Project conducted technical upgrades on two reverse osmosis water filter systems ("ROA/B"). Due to a drop in temperature, the unit output of reverse osmosis water from the ROA/B systems decreased, failing to meet production demands. To address this issue, Lianshui Project replaced all 54 reverse osmosis membranes in the ROA system. Meanwhile, the membranes previously used in the ROA system were installed in the ROB system, effectively maximising resource utilisation.

Following the upgrades, the overall concentrate discharge from the ROA/B systems significantly decreased, and the inflow of water to the filter system also reduced. This achievement not only optimised operational costs but also resulted in less resource utilisation and wastewater discharge.

#### Boiler Flushing Water Collection System Upgrades at Xintai Zhengda Project

During the Reporting Period, Xintai Zhengda Project implemented upgrades to the flushing water collection system for three boilers. The water used for flushing ash from the preheater, superheater, and economiser was acidic and therefore should be collected separately. It needed centralised treatment before being safely discharged into the sewer. To improve wastewater treatment efficiency, Xintai Zhengda Project installed additional flexible hose bags at the bottom of the furnace. By diverting wastewater to an external drainage ditch for sedimentation, the Xintai Zhengda Project reduced wastewater treatment costs while achieving reuse purposes.

## Exhaust Gas Management

To effectively mitigate the environmental impact of exhaust gas emissions, Sunpower Group has implemented an exhaust gas management system to continuously monitor the emissions of flue gas and maintain management records of flue gas collection and treatment facilities. Additionally, through process optimisation and equipment upgrades, we ensure that exhaust gases are emitted within regulatory limits, thereby reducing uncontrolled emissions.

To address dust pollution, we have established a dust monitoring system to cover and stabilise dust-prone areas. We have also installed dust suppression sprayers for effective dust control and implemented greenery planting around construction sites. These efforts ensure stringent control over dust pollution generated during construction processes.

### Upgrades to Ammonia Liquid Vaporisation System in Denitrification Furnace at Yongxing Plant

During the Reporting Period, Yongxing Plant experienced exacerbated ash accumulation in the low-temperature air preheater and low-temperature economiser at the tail end of the boiler due to ammonia leakage. This led to a rapid escalation in the baghouse differential pressure and flue gas temperature, consequently resulting in increased ammonia consumption. To address this issue, Yongxing Plant implemented a steam upgrading process to vapourise 20% of the ammonia liquid into gas. Additionally, a dilution fan was utilised to introduce the ammonia gas into the ammonia injection grid located in the vertical shaft flue of three furnace SCR units. This injected gas functioned as a denitrification reducing agent, reacting with nitrogen oxides present in the flue gas to achieve denitrification. As a result, emissions of nitrogen oxides met the required standards while simultaneously reducing ammonia liquid consumption.



Upgrades to Ammonia Liquid Vaporisation System in Denitrification Furnace

### Changrun Project Implemented System Upgrades to Control Ammonia Escape

To ensure compliance with the stringent ammonia escape standards outlined in the *Emission Standards for Pollutants from Coal-fired Power Plants in Hebei* (DB13/2209-2015) released by the Department of Ecology and Environment of Hebei Province, Changrun Project undertook equipment modifications and process refinements within the desulfurisation system, and installed online monitoring apparatus at the flue gas discharge point, facilitating real-time tracking and transmission of parameter data.

To augment the desulfurisation system's operational capacity, Changrun Project added two supplementary absorption circulation pumps and large-diameter tangential cone nozzles. It also replaced ammonia injection chambers with barrels. These upgrades served to elevate the system's liquid-to-gas ratio and oxidation efficiency. Additionally, the system bolstered the third-stage water circulation volume through the incorporation of advanced demisting technology. Following the comprehensive modifications, both absorption towers have transitioned into trial operations, yielding a substantial reduction in ammonia escape concentration, well beneath regulatory thresholds. All other pollutant emission metrics remain in full compliance with prescribed standards.



System Upgrades to Control Ammonia Escape

## Noise Management

During construction and operation, we proactively implement engineering and regulatory measures to mitigate noise. Sunpower Group strictly regulates construction schedules, monitors noise levels, and conducts on-site noise monitoring in real time to safeguard the well-being of surrounding residents and employees in their living and working environments.

### Construction Stage

- Implement noise reduction measures and report to the environmental authorities the equipment used during the construction process according to relevant regulations.
- Utilise machinery and tools with low noise and low vibration, and implement soundproofing and vibration isolation measures.
- Construction workers use two-way radio for long-distance communication and are strictly prohibited from shouting. They are required to minimise noise disturbance from night-time construction activities.

### Operational Stage

- Use silencers during boiler discharge and pipeline purging processes, and notify surrounding residents in advance.
- Utilise equipment such as induced draft fans and blowers with soundproofing capabilities to minimise noise pollution during the production process.

Noise Control Measures

## Performance

Indicator	2023	Unit
<b>Wastewater Discharge</b>		
Total amount of wastewater discharge	266.95	10,000 tons
Wastewater discharge rate	0.18	Wastewater discharge amount/ water consumption amount
<b>Waste</b>		
Amount of non-hazardous solid waste generated	608,726.03	Ton
Amount of hazardous waste generated	52.21	Ton
Treatment/disposal rate of solid waste	100	%
Waste discharge rate	0.04	Ton/Ton of steam
<b>Exhaust Gas Emission</b>		
Nitrogen oxide (NOx) emissions	476.43	Ton
Sulfur oxide (SOx) emissions	256.54	Ton
Dust emissions	48.15	Ton

## 2.3 Energy, Water, and Materials

Sunpower Group places great emphasis on resource conservation and fully recognises the significance of resource management. We are dedicated to optimising resource utilisation to enhance energy efficiency, actively exploring clean energy applications, and efficiently recycling water resources and materials to minimise our environmental footprint. In doing so, we contribute significantly to sustainability efforts.

### Governance Structure and Policy

Sunpower Group strictly adheres to all applicable laws and regulations where it operates, such as the *Energy Conservation Law of the People's Republic of China*. The Group has established a series of internal rules and regulations including the *Regulatory Provisions on Coal*, the *Material Management System*, the *Waste Material Management System*, the *Technological Improvement Project Management System*, the *Small Target Competition System*, and the *Production Assessment and Management System*. These systems are designed to advance the management efforts of energy, water, and materials.

The Group adheres to a management process aimed at controlling, supervising, and rectifying to prevent resource wastage and bolster resource efficiency. We set specific consumption targets for water, electricity, coal, steam, and chemicals for each project company based on the design parameters of facilities and technological upgrades. Additionally, we monitor and evaluate our monthly progress toward these targets. All projects are mandated to report their energy, water, and material usage, which undergoes thorough review by the Group. Furthermore, we conduct monthly statistical analyses of resource usage, identifying and rectifying any abnormal usage patterns. Subsequently, we adjust future usage strategies to optimise resource allocation and enhance overall operational efficiency.

### Our Measures

#### Energy Management

Sunpower Group is dedicated to optimising energy usage and advancing energy-saving technologies to reduce unnecessary consumption, enhance energy efficiency, and explore scenarios for renewable energy applications. During the Reporting Period, the Group implemented several initiatives, including energy-saving renovations of energy-intensive equipment by adding frequency converters. These efforts aim to promote green operations and achieve a win-win situation in both economic benefits and environmental sustainability.

#### Variable Frequency Conversion of Changrun Project's Primary Water Supply System

Changrun Project's primary feed water system initially comprised three water pumps. Before renovation, when the main water flow dipped below 260 tons per hour, only one pump was switched on for operation; when the flow surpassed that threshold, two pumps sprang into action, operating at the standard power frequency. However, this mode of operation rendered the variable frequency pumps ineffective in regulation, leading to diminished pump efficiency and heightened power consumption.

In pursuit of enhanced energy efficiency, Changrun Project embarked on fundamental upgrades to the electrical choke room. It introduced two sets of high-voltage frequency converters and supplemented them with power-frequency cooling fans to optimise the cooling mechanism for the water pump motors. Through these refurbishments, both pumps now operate under the regulation of frequency converters, maintaining a consistent frequency range of 45-50 Hertz. This has effectively curtailed power consumption while bolstering operational steadiness.

#### Frequency Conversion Transformation of Boiler Induced Draft Fan in Yongxing Plant

To enhance energy efficiency and reduce power consumption, Yongxing Plant conducted a significant upgrade to the induced draft fans of its boilers. Previously, the high-pressure frequency converter of the fan operated inefficiently at a fixed frequency bypass mode, leading to excessive electricity consumption. Moreover, regular module replacements were necessary for uninterrupted operation, with each replacement consuming an additional 2 tons of fuel due to startup and shutdown procedures. The implementation of frequency conversion eliminates the need for unnecessary start-stop cycles of normally operating boilers, which is expected to result in substantial energy savings of approximately 5,000 KWH per operating day.

#### Variable Frequency Conversion of Suyuan Plant's Primary Fans in Boilers

The primary fans at Suyuan Plant operated at a fixed frequency. These fans incurred substantial electricity consumption due to the significant fluctuations in boiler peak and off-peak loads. During the Reporting Period, Suyuan Plant undertook a critical initiative to enhance energy efficiency by retrofitting variable frequency drives for its existing primary fans. The upgrade was executed to mitigate the electricity consumption. As a result of these enhancements, the daily electricity savings amounted to 6,180 KWH.

### Development and Utilisation of Clean Energy

Based on its industry-specific characteristics and business operations, Sunpower Group maximizes the use of biomass and photovoltaic solutions to propel the development and utilization of clean energy sources, thereby advancing sustainable practices. Meanwhile, the Group fosters a culture of ongoing technological innovation to continuously enhance the efficiency of clean energy development and output, thereby contributing to the creation of a greener and more promising future.

#### Biomass Cogeneration Project

As of the end of the Reporting Period, Sunpower Group successfully commissioned and operated two biomass projects: Xintai Zhengda Project and Tongshan Project. During the Reporting Period, the Group utilized over 600,000 tons of agricultural and forestry waste, leading to the generation of approximately 470 million kilowatt-hours of clean electricity and the production of over 100,000 tons of steam. These endeavours represent a significant enhancement in the Group's capacity for resource reuse.

#### Jining Project Rooftop Solar PV Project

To diminish the consumption of fossil fuels and mitigate waste emissions while safeguarding the long-term energy security of the Group, Jining Project undertook a rooftop solar PV project. During the Reporting Period, the project has been operational with an installed capacity of 8.8 megawatts, generating an annual output of 10 million KWH. We plan to expand the total installed capacity by 2024, further reducing fossil fuel consumption and waste emissions.

### Water Management

Effective management of water resources is crucial for the sustainability of business operations and the ecological environment. Sunpower Group has implemented comprehensive systems to regulate water usage in production, ensuring compliance with water withdrawal and usage regulations while minimizing unnecessary waste. Our water sources, which encompass municipal water, rivers and lakes, desalination water, and recycled water, are all covered by appropriate water usage permits.

To bolster water utilisation efficiency and reduce water usage costs, the Group has set clear water-saving targets and proactively implemented strategies to optimize water treatment processes, thereby driving efficiency gains and advancing our targets. We conduct routine inspections to promptly identify and rectify any leaks or other water-related inefficiencies, thereby minimizing unnecessary water wastage. Additionally, we have established a robust recycling framework and employed innovative techniques such as condensate water recovery to enhance water reutilization rates.



### Upgrades to Changrun Project's Industrial Water Pipelines

To effectively address safety concerns and potential dangers arising from corroded and leaking industrial water pipelines within the premises of Changrun Project, proactive measures were taken. By replacing the aging pipes with overhead seamless piping, potential leaks in the industrial water system can be prevented. Meanwhile, efforts were made to ensure an adequate supply of cooling water for fan bearing operation, thereby safeguarding the normal and secure functioning of production equipment. The upgraded industrial water pipes not only reduced water consumption in the industrial water system but also enhanced the efficiency of water utilization, laying a robust foundation for the project's safe and steady operations over the long term.

### Upgrades to Changrun Project's Pipelines of the Circulating Water Replenishment Tanks

The circulating water replenishment tanks at Changrun Project relied on mildly acidic reclaimed water from the sewage treatment plant, leading to corrosion of carbon steel pipelines and an excessive presence of iron ions in the circulating water. This could pose safety risks to the entire water pipeline infrastructure. To mitigate corrosion risks, Changrun Project replaced all replenishment pipelines with PE pipes. This action effectively eliminated corrosion issues, significantly improved water quality, and ensured the safe and steady operation of the facility's circulating and industrial water systems.

### Upgrades to Yongxing Plant's Water Circulation System

During the Reporting Period, Yongxing Plant embarked on a comprehensive overhaul of its water circulation system to reduce overall energy consumption. The company abolished the previous buried main water circulation pipes and significantly improved water circulation efficiency through scientifically optimised circulation pathways. Addressing operational efficiency and stability concerns with the circulation pumps, Yongxing Plant conducted precision upgrades to the pumps and implemented a strategy of having one standby pump for each operational pump to ensure efficient and smooth operation. Through these systematic renovations, it achieved a reduction in the overall electricity consumption of the water circulation system.

### Upgrades to Shanxi Xinjiang Project's Concentrated Wastewater Recycling Equipment

Shanxi Xinjiang Project proactively aligned with national water conservation policies, consistently enhancing the efficiency of water utilisation. During the reporting period, the company installed a new system for recovering and reusing concentrated wastewater, underscoring its commitment to water conservation and circular usage. This advanced equipment can efficiently collect and repurpose concentrated wastewater generated during production, complementing existing reuse infrastructure. The implementation of this system significantly boosted the amount of water recycled while reducing overall consumption.

## Material Management

Sunpower Group is dedicated to minimising material usage while continuously improving utilisation rates and integrating principles of reduction, reuse, and recycling across all aspects of procurement, production, and operations. The Group has implemented a robust supply management system to standardise processes for planning, procurement, acceptance, storage, distribution, settlement, and recycling of materials. A comprehensive usage plan is developed for durable materials, and we adhere to the "zero inventory" approach based on the principle of "one out and one in" to ensure optimal material utilisation.

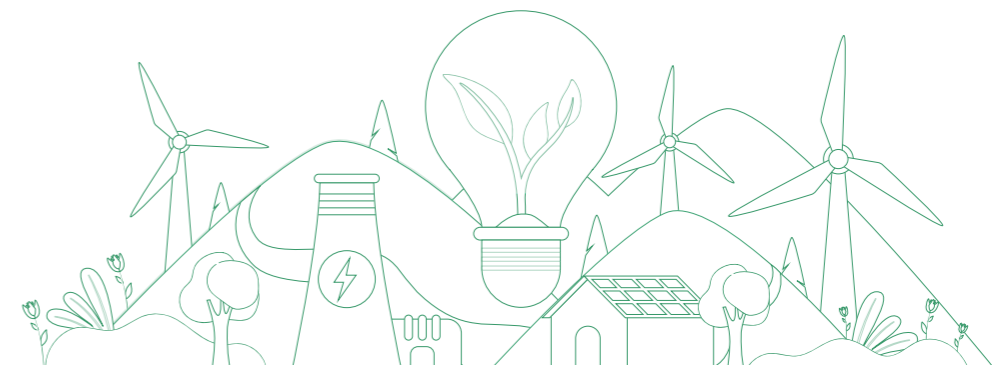
## Green Office

Sunpower Group is committed to the principle of green and low-carbon practices. By implementing a range of measures within office areas to promote energy efficiency, resource conservation, and recycling, the Group pledges to march forward along the sustainability journey.

The Group has implemented water-saving fixtures in its restrooms, effectively reducing water wastage. Additionally, energy-efficient LED lighting fixtures are extensively deployed across the premises, resulting in reduced electricity consumption. In terms of information dissemination and data management, various departments utilise online platforms such as the OA system, email system, and videoconferencing for efficient communication, which minimises offline approvals and conserves paper usage. Moreover, there is a gradual shift towards electronic document archiving, further optimising resource utilisation.

## Performance

Indicator	2023	Unit
<b>Water Usage</b>		
Total water consumption	1,447.91	10,000 tons
Water consumption intensity (measured in tons of water consumption per ton of steam sold)	1.45	Ton of water/Ton of steam
<b>Energy Usage</b>		
Total energy consumption	4,616.72	10,000 GJ
Energy consumption intensity (measured in kilograms of standard coal consumption per ton of steam produced)	104.55	Kg/Ton
Electricity consumption	37,309.88	10,000 KWH
Electricity consumption intensity (measured in kilowatts of electricity consumption per ton of steam produced)	24.76	KWH/ Ton



## 2.4 Climate Change and Greenhouse Gases

Sunpower Group proactively responds to international climate change initiatives and China's dual carbon goals. Following the disclosure recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), we have established a governance framework to systematically identify, assess, and address climate change risks.

### Governance

The Board of Directors of the Group assumes regulatory responsibility for climate change risks, ensuring their integration into corporate strategy. Furthermore, the Board engages in discussions concerning the identification and assessment of climate change-related risks and opportunities, reviews progress toward objectives, and oversees the implementation and effectiveness of response measures and emergency mechanisms. The Sustainable Development Committee is tasked with identifying and evaluating the primary impacts of climate change on our actual business operations. It regularly discusses ESG-related risks, including those associated with climate change, evaluates the effectiveness and sufficiency of response measures, and reports findings to the Board. Under the Sustainable Development Committee, the Sustainable Development Team breaks down the risk management strategy for addressing climate change into tasks and measures. It formulates plans and programmes to achieve objectives and ensures their implementation by specific personnel across the Group. It also provides regular reports on ESG-related information. Additionally, the group has established a Carbon Emission Management Department tasked with advancing emission management efforts in daily operations, aiming to improve the emission management system and data supervision mechanisms.

### Strategy

Addressing climate change is increasingly becoming a global consensus, Sunpower Group pledges to prioritise or adopt energy-saving and emission-reduction technologies in our decision-making process, as well as implement measures aimed at reducing greenhouse gas emissions. We are committed to continuously developing clean energy sources and promoting the transition of our value chain towards cleaner and more sustainable business models. To better address climate change and minimise the environmental impact of our business activities, we are implementing the following measures focused on energy conservation and carbon reduction:

Establishing a management mechanism to phase out the use of outdated extraction condensing turbines and enhance unit thermal efficiency.



Increasing steam production per ton of raw materials through technological upgrades to reduce standard coal consumption per ton of steam produced and achieve a decrease in carbon emissions accordingly.



Ensuring efficient operation of units through technological innovation and maintenance to improve energy efficiency and ensure a steady decline in carbon emissions metric ton of steam within the Group.



## Risk Management

Sunpower Group has conducted a comprehensive analysis of external factors such as government planning and policies, historical records of extreme weather events, as well as internal factors including operational characteristics and business plans. Through this analysis, we have identified climate change risks relevant to our operations. Subsequently, we have developed corresponding strategies to manage and mitigate the potential risks and adverse impacts of climate change on the business growth and operational management of the Group.

	Physical Risks	Potential Impacts	Response Strategies
Acute Risks	Typhoon	<ul style="list-style-type: none"> <li>Typhoons may destroy the operational pipeline network, equipment, and facilities, affect the stability of electricity and steam supply, and threaten the safety of employees and customers. This can lead to a breach of contract, compensation, and legal liability due to business interruption and other issues.</li> </ul>	<ul style="list-style-type: none"> <li>Formulate a typhoon emergency rescue plan.</li> <li>Use stronger facility and piping design to reinforce the equipment support.</li> <li>Raise flood control stairs in special areas to improve the resilience against natural disasters.</li> </ul>
	Flood	<ul style="list-style-type: none"> <li>Floods may destroy the operational pipeline network and equipment and facilities, affect the stability of electricity and steam supply, threaten the safety of employees and customers, and increase the risk of flooding of equipment and facilities in low-lying areas.</li> </ul>	<ul style="list-style-type: none"> <li>Formulate a flood control and emergency rescue plan.</li> <li>Fully consider local precipitation and elevate reinforce infrastructure or add more drainage facilities during the design phase.</li> <li>Raise flood control stairs in special areas to improve the resilience against natural disasters.</li> </ul>
	Extreme Precipitation	<ul style="list-style-type: none"> <li>Extreme precipitation may destroy the operational pipeline network and equipment and facilities, affect the stability of electricity and steam supply, threaten the safety of employees and customers, and increase the risk of flooding of equipment and facilities in low-lying areas.</li> </ul>	<ul style="list-style-type: none"> <li>Formulate a flood control and emergency rescue plan.</li> <li>Fully consider local precipitation and reinforce infrastructure or add more drainage facilities during the design phase.</li> <li>Raise flood control stairs in special areas to improve the resilience against natural disasters.</li> </ul>
	Extremely Hot Weather	<ul style="list-style-type: none"> <li>Extremely hot weather may increase employee health and safety risks.</li> <li>This may increase the operating cost of on-site temperature control.</li> <li>This may also increase the maintenance cost of equipment and facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Formulate an emergency rescue plan for hot weather and heatstroke.</li> <li>Arrange temperature control facilities such as sunshades, ventilation, and air conditioning.</li> <li>Prepare first-aid medicine for heatstroke.</li> </ul>
	Extremely Cold Weather	<ul style="list-style-type: none"> <li>Extremely cold weather may increase employee health and safety risks.</li> <li>This may increase the operating cost of on-site temperature control.</li> <li>This may also increase the maintenance cost of equipment and facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Formulate emergency rescue plans for extremely cold weather and implement measures of protection against freezing conditions to ensure the safety of personnel and equipment.</li> <li>Every winter, a working group for protection against freezing conditions is set up to carry out temperature forecast and analysis and resource matching in advance. Additionally, the working group monitors, analyses and reports changes in supply and demand, discusses and updates emergency measures, and ensures steady steam supply in winter.</li> <li>Arrange temperature control facilities such as heat preservation, heat tracing and air conditioning.</li> </ul>
Chronic Risks	Sea Level Rise	<ul style="list-style-type: none"> <li>Sea level rise may destroy existing operational pipeline network, equipment, and facilities. In addition, the possible migration of coastal cities inland affects the existing markets.</li> </ul>	<ul style="list-style-type: none"> <li>Continuously monitor the trend of rising sea levels.</li> <li>Conduct prevention and emergency response research.</li> </ul>
	Global Warming	<ul style="list-style-type: none"> <li>Global warming may increase the risk of heat waves, droughts, and fires.</li> <li>It may also increase the maintenance cost of electricity and steam supply facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Formulate emergency rescue plans for extreme weather events and heatstroke.</li> </ul>

Transition Risks	Potential Impacts	Response Strategies
Policy	The ongoing implementation of China's dual carbon goals and environmental protection policies may have adverse effects on coal-fired units.	
Technology	As the emission standards for exhaust gas continue to increase, some outdated processes and equipment will be rendered non-compliant.	In response to the evolving energy landscape, Sunpower Group will continue to increase investments and explore innovative energy-saving technologies to promote the low-carbon transformation of the energy structure. Additionally, the Group strategically develops businesses such as biomass cogeneration and other clean energy deployment to better meet future energy demands.
Market	Due to various factors such as the strict execution of environmental protection and dual carbon goals, as well as geopolitical issues, some downstream customers may face growing challenges and pressure.	

## Performance and Indicators

To assist stakeholders in understanding our progress in addressing climate change and evaluating the effectiveness of related actions and plans, we have established targets to reduce greenhouse gas emission intensity. For updates on the progress of these targets for 2023, please refer to the section "ESG Goals and Commitments" in this report.

Going forward, Sunpower Group will consider developing longer-term, more detailed, and higher-standard emission reduction targets to support the national dual carbon goals.

The Group's carbon emission-related performance in 2023 is shown as follows:

Indicator	2023	Unit
Total greenhouse gas emissions	356.74	10,000 tons
Direct (Scope 1) greenhouse gas emissions	3,564,302.50	Ton of carbon dioxide
Indirect (Scope 2) greenhouse gas emissions	3,130.40	Ton of carbon dioxide
Greenhouse gas (steam and heating supply) emission intensity	0.1029	Ton/GJ
Greenhouse gas (electricity supply) emission intensity	0.3947	Ton/MWH
Direct (Scope 1) Greenhouse gas (steam and heating supply) emission intensity	0.1028	Ton/GJ
Direct (Scope 1) Greenhouse gas (electricity supply) emission intensity	0.3944	Ton/MWH
Indirect (Scope 2) Greenhouse gas (steam and heating supply) emission intensity	0.0001	Ton/GJ
Indirect (Scope 2) Greenhouse gas (electricity supply) emission intensity	0.0003	Ton/MWH



# 03.Society

## SDGs



## GRI metrics

GRI 2, GRI 3, GRI 201, GRI 203, GRI 308, GRI 401, GRI 403, GRI 404, GRI 405, GRI 406, GRI 407, GRI 408, GRI 409, GRI 413, GRI 414, GRI 416, GRI 418

Sunpower Group is dedicated to fostering innovation and upholding quality as the cornerstone of our operations. We consistently upgrade and optimise environmental protection technologies to deliver the best service experience to our customers, while also empowering both customers and society in their low-carbon transition. We adhere to a people-oriented management philosophy, prioritising the rights and interests of our employees and striving to create a harmonious, equitable, and safe working environment. This effort is aimed at fostering mutual growth for both employees and the Group. Additionally, we actively embrace corporate social responsibility and collaborate with suppliers and other industry partners to promote social sustainability.

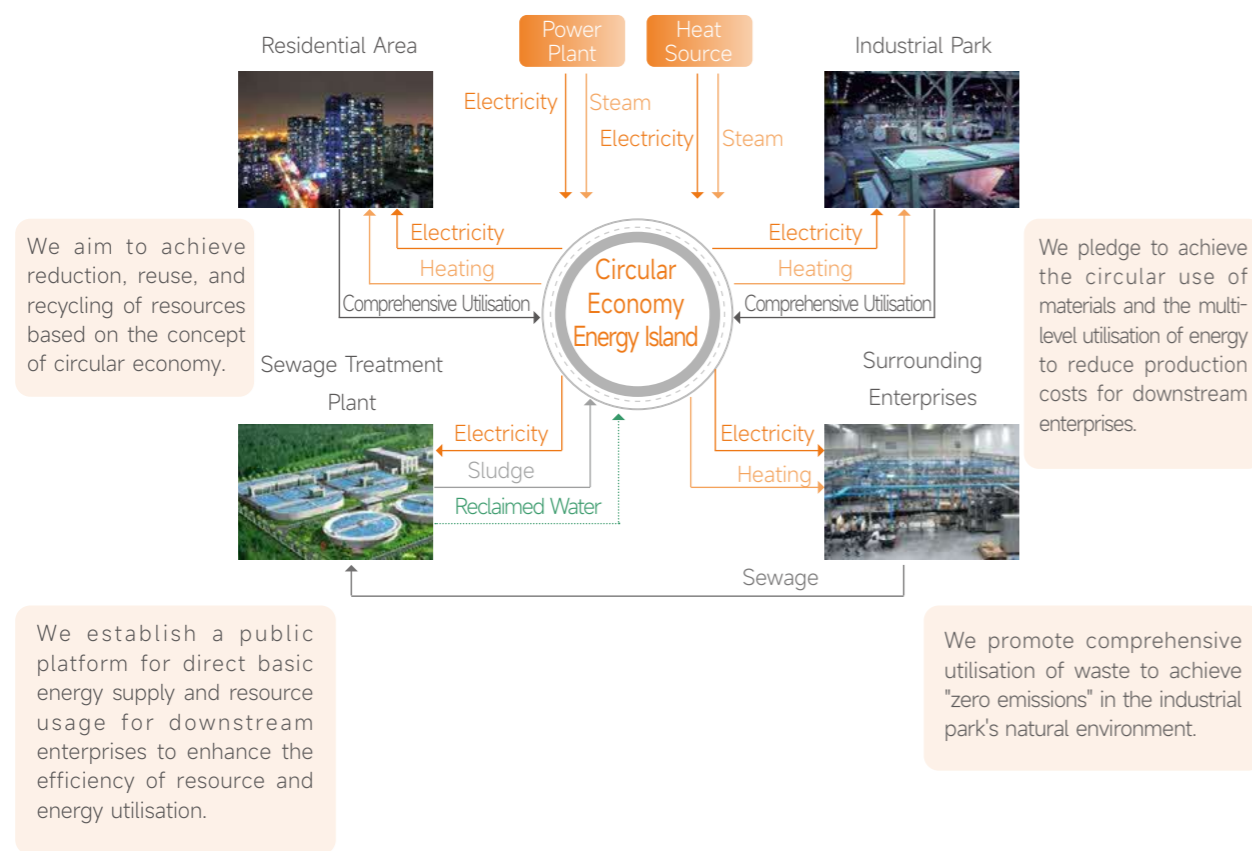


## 3.1 Innovation and R&D

Sunpower Group remains steadfast in its commitment to the spirit of "Be wise and open-minded yet never extreme." The Group actively responds to the national dual carbon goals by continuously exploring innovative technologies that prioritise green solutions, energy efficiency, and environmental friendliness. Our aim is to expedite the low-carbon transformation of downstream enterprises. We are also intensifying our efforts to protect intellectual property rights and bolster our own technological capabilities and advantages. We are dedicated to contributing support for the sustainable development of the industrial value chain.

### Governance Structure and Policy

As a comprehensive service provider for multi-level energy utilisation, Sunpower Group is dedicated to advancing the circular economy within downstream industrial parks. We utilise our environmental protection technologies to assist these parks in reaching their energy conservation and consumption reduction objectives. To achieve this, we have implemented the *Management Measures for Technological Upgrades and Expansion Projects*. We continuously develop innovative environmental technologies and enhance the effectiveness of our technology applications. Our goal is to offer users cost-effective, stable, and efficient clean energy solutions.



Concept and Direction of Technological Innovation


## Our Measures

Sunpower Group capitalises on the opportunities presented by the low-carbon transformation and strategically positions itself within the environmental protection industry. This includes centralised heating/combined heat and power (CHP), clean utilisation of coal, investment in and development of clean energy solutions, urban and industrial sludge treatment and disposal, comprehensive management of general solid waste, and research and development of clean energy, energy conservation, and environmental protection technologies. We focus on innovation and research in three primary areas: environmental protection technology, energy conservation technology, and steam transportation technology. By continuously enhancing our capabilities in emission control and energy conservation, we aim to strengthen the core strength and competitiveness of the Group.

Environmental Protection Technologies	Low Nitrogen Combustion Technology	Effectively reduce NO <sub>x</sub> emissions and maximise combustion efficiency. Achieve dust emission of less than 5 mg/Nm <sup>3</sup> .
	Desulfurisation and Denitrification Technology	Effectively prevent aerosol pollution. Convert recovered sulfur dioxide, nitrogen oxides, and other pollutants from flue gas into marketable compound fertilisers. Achieve sulfur dioxide emission of less than 35mg/Nm <sup>3</sup> .
	Smog and Ammonia Elimination Technology	Significantly reduce NO <sub>x</sub> emission concentration while ensuring stable and efficient combustion, and maximise combustion thermal efficiency. Achieve nitrogen oxide emission of less than 50mg/Nm <sup>3</sup> .
Energy Conservation Technologies	High-efficiency Heat Exchange Technology	Implement high-efficiency heat exchange, high-efficiency combustion, and comprehensive waste heat utilisation techniques to increase boiler heat exchange efficiency.
	Flue Gas Heat Exchange Technology	Recover the heat from high-temperature flue gas to ensure the normal operation of the desulfurisation tower, reduce water consumption, and enhance the tower's desulfurisation efficiency, thus reducing secondary pollution to the atmosphere.
	Low-temperature Coal Saving Technology	Reduce the flue gas temperature emitted by the boiler from 150°C to 90°C to enhance boiler combustion efficiency and desulfurisation efficiency, while reducing water consumption in the process by 50%.
Low-Consumption and Long-Distance Transportation Technology of Steam	Significant Energy Savings	Utilise suitable composite insulation structure to achieve the optimal cost-effectiveness during transportation.
	Intelligent Control of Pipeline Network	Enable online leak detection, safety management, and real-time remote monitoring, and achieve remote and centralised management of pipeline network, operational visualisation, and heating supply safety.
	Long-Distance Transportation	The coverage radius of heating supply can reach up to 30 km, achieving a temperature drop of no more than 2-5°C /km and a pressure drop of no more than 0.015-0.05 MPa/km.

To incentivise employees to actively engage in innovative research and development, we have explicitly outlined in the *Employee Handbook* a system for rewarding employees with various levels of cash bonuses based on their contributions, such as providing reasonable suggestions, making significant innovations, or upgrading technology and processes.

Additionally, we prioritise the protection and accumulation of intellectual property (IP) rights. Sunpower Group safeguards its legitimate rights and interests through patent applications while avoiding infringement on the intellectual property rights of others. We are fully committed to IP protection. During the Reporting Period, we organised patent application training sessions conducted by external professional organizations for personnel from both the headquarters and various project companies. These sessions aimed to enhance the patent drafting and application capabilities of participants and strengthen their awareness of IP protection. A total of 65 individuals participated in this training initiative.

Invention Patents	Utility Model Patents
A process for treating produced water from heavy oil recovery as boiler feed water	A system for recovering waste heat from desalination water absorption in power plants
A device and method for improving the quality of ammonium sulfate by-product in ammonia-based desulfurisation	A novel process device for flue gas desulfurisation and smog removal
	A new ammonia-based desulfurisation device
	An energy-saving and environmentally friendly device for utilising waste heat from flue gas

A Selected List of Sunpower Group's Patents

Sunpower Group actively participated in industry exchanges, consistently seeking to learn and adopt advanced environmental technologies, while also benefiting from valuable insights shared by industry peers. This commitment underscores our dedication to enhancing innovative development capabilities. During the Reporting Period, we participated in the inaugural Thermal Power Industry New Energy Storage Technology and Application Forum, co-organised by the China Energy Conservation Association and the China Electricity Technology Market Association. Additionally, we joined the National Thermal Power Plant Energy Saving, Efficiency Enhancement, and New Environmental Protection Technology Seminar, organised by the National Power Industry Association. These events played a crucial role in expanding our innovative thinking and strategic vision.

## Performance

As of the end of the Reporting Period, total possessed patents

11

Invention patents

2

Utility model patents

9

During the Reporting Period, newly applied utility model patents

13



## 3.2 Quality Management and Customer Service

Sunpower Group adheres to a customer-centric service philosophy, continuously refining its quality management system, and prioritising the provision of high-quality steam and heating supply services. We are committed to offering customers stable, reliable, safe, and efficient clean energy solutions and strive to earn their long-term trust through continuous enhanced services.

### Governance Structure and Policy

Sunpower Group has developed and implemented various policies and procedures, such as the *Regulation on Production Operation*, the *Steam and Heating Supply Network Management System*, and the *Technical Supervision Management Procedures*. We continuously enhance our mechanisms for equipment management, technical supervision, operational management, assessment management, and fuel management. We have established stringent management procedures for all project stages, from pre-commissioning to operation, delivery, and maintenance. We conduct comprehensive quality management and supervision throughout these stages, and maintain detailed records of professional equipment to ensure the safe and uninterrupted operation of units over the long term, thereby securing the consistent supply of high-quality energy to our customers.

### Our Measures

#### Quality Assurance

We prioritise the quality of our products and services, primarily offering medium and low-pressure steam with pressures ranging from 0.6 MPa to 3.5 MPa and temperatures ranging from 180°C to 350°C. By adjusting steam pressure and temperature, we meet the diverse needs of our customers for steam and heating supply. To ensure a stable and continuous energy supply, we identify, classify, and control safety risks during the operations, commissioning, and maintenance of the steam pipeline network. We also conduct regular inspections and manage safety hazards. Additionally, we continuously improve our emergency power supply plans and develop contingency plans to ensure the safe and uninterrupted operation of our units.

We conduct quality assessments prior to project commissioning and strive to maintain high standards throughout production processes. Additionally, we perform post-delivery maintenance inspections to ensure comprehensive quality control across the entire project lifecycle.

#### Pre-Commissioning

- Conduct a comprehensive review during the project development and design phase to fully assess risks and identify management priorities.
- Enhance material management and strictly enforce coal storage zoning to ensure the safety of material storage.

#### During Operation

- Conduct safety inspections monthly to ensure the safe operation of pipelines and the stable supply of steam and heating.
- Implement a routine inspection mechanism for the heating network, and strengthen emergency response capabilities through simulated drills.
- Regularly analyse and assess heating pipeline pressure, adjust parameters or improve pipeline networks promptly to ensure the efficient operation of the heating system.

#### Post-Delivery Maintenance

- Regularly inspect the steam pipeline network to promptly address any leaks or drips, thereby avoiding insufficient heating caused by network leakage.
- Enhance the regular inspection of heating network meters to ensure proper functioning, standardise instrument parameter settings, and promptly address any metering issues.

### Specialised Safety Inspection Campaign on Heating Networks

During the Reporting Period, Changrun Project conducted a specialised safety inspection campaign on heating pipeline networks in the summer, with a particular focus on low-lying areas where these pipelines are located. We intensified our efforts in inspecting these heating networks to prevent incidents of pipelines being buried by rainwater. Protective measures were implemented for pipelines located in low-lying or buried areas, significantly improving the detection rate of high-risk hazards in the heating network and the quality of corrective actions. Additionally, this specialised inspection activity contributed to enhancing the safety awareness of dedicated personnel and the reliability of heating network equipment, thereby improving their ability to identify and resolve issues.



Engineers Are Conducting Safety Inspection of Heating Networks

We also continuously enhance the quality management capabilities of our employees by organising regular specialised training sessions. Additionally, we promote the exchange of best practices in project quality management through the establishment of internal communication platforms.

### Specialised Training Session on Heating Pipeline Damage Control

During the Reporting Period, we organised specialised training sessions for the personnel of each project company's heating network department to enhance their skills in pipeline damage control. These sessions focused on theoretical concepts to improve employees' technical expertise in heating network instrument maintenance. Furthermore, we established a platform for the exchange of ideas, knowledge, and best practices among them. By combining theoretical learning with practical discussions, we provided effective approaches to pipeline damage control in the heating network and encouraged project companies to jointly explore and resolve challenges in this area. This collaborative effort contributed valuable insights for quality control in subsequent projects.



Participants at the Specialised Training Session

## Customer Service

Sunpower Group is committed to exceeding customer expectations by promptly and professionally responding to their needs. We strive to address customer concerns to the best of our ability and handle complaints responsibly.

The Group has implemented a return visit system to effectively meet customer needs and continuously enhance service quality by conducting regular on-site surveys to gauge customer experiences and gather feedback. We have adopted a butler service mode and a one-to-one community service approach to improve service efficiency and customer satisfaction. Furthermore, we maintain open channels for customer feedback and complaints, offering various avenues such as a 24-hour feedback hotline, dedicated hotlines for heating network issues, and a comprehensive affair handling platform. Dedicated personnel are appointed to ensure a thorough response to all issues, resulting in a 100% response rate for customer feedback.

We also prioritise service enhancement by regularly organising training sessions on topics such as product knowledge and user analysis. These events help ensure that all our employees are well-prepared to meet customer needs effectively.

**24** Hour

feedback hotline

Dedicated hotline for heating network issues

Comprehensive affair handling platform

### Lianshui Project Provided Customers With Long-term and Premium Services

Lianshui Project has established a long-term and mutually beneficial partnership with its customers, providing various services such as policy interpretation, price consultation, coordination of steam usage during peak periods, and guidance on equipment maintenance. Continuously empowering customers in boiler usage, safe operation of high-temperature and high-pressure steam, energy conservation, and consumption reduction, it has consistently delivered comprehensive and premium after-sales services to its customers. For newly introduced enterprises in the local industrial park, the company promptly completed pipeline construction and resolved any issues encountered by new customers, ensuring smooth production activities for them. It has been widely recognised for its comprehensive and attentive service, and received commendations from multiple enterprises in the form of banners.

## Performance

Customers we served over

**500**

Appreciation letters received in 2023 about

**90**

Banners received in 2023 about

**50**

**No complaints about product quality failing to meet customers' requirements in 2023.**

**There were no safety violations related to our products or services in 2023.**

## 3.3 Employee Rights and Interests Protection

Talent holds the key to a company's core competitiveness. Guided by a people-oriented philosophy, Sunpower Group has established diverse recruitment channels to attract talented individuals from various backgrounds. Meanwhile, we continuously enhance measures to safeguard employee rights and interests. Additionally, we prioritise the physical and mental wellbeing of our employees, demonstrating genuine care for their lives, and strive to create an inclusive and equitable work environment where every employee can thrive and feel valued.

### Governance Structure and Policy

Sunpower Group adheres to the concept of "sharing responsibilities and creating careers together, sharing achievements and achieving win-win results in the future". We strictly abide by all applicable laws and regulations where we operate, including the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, the *Law of the People's Republic of China on the Protection of Women's Rights and Interests*, the *Law of the People's Republic of China on the Protection of Minors*, the *Provisions on the Prohibition of Using Child Labor*, and the *Social Insurance Law of the People's Republic of China*. The Group has established a robust human resources (HR) management framework, continuously refining recruitment standards and the compensation and benefits structure through the implementation of internal policies like the *Employee Handbook*, the *Personnel Management System*, and the *Workers' Representative Congress System*. This ensures all-round protection of employees' fundamental rights and interests.

### Our Measures

#### Talent Recruitment

Sunpower Group upholds the principle of equal employment and remains committed to fostering a diverse and equitable workplace. We strongly oppose all forms of discrimination based on age, nationality, marital status, race, colour, ethnicity, religion, physical condition, or gender identity throughout our recruitment and development processes. During the Reporting Period, no incidents of discrimination or harassment were reported.

Furthermore, we firmly prohibit all forms of child labour and forced labour and verify the age of new employees to ensure compliance with legal working age requirements. Sunpower Group is committed to promoting a diverse and inclusive corporate culture, ensuring that female employees have equal access to compensation, benefits, and career development opportunities.

We continuously explore flexible and diverse recruitment channels, including campus and social recruitment fairs, as well as internal referrals. Additionally, we organise more engaging recruitment activities to meet the long-term staffing needs of the Group. In 2023, Sunpower Group actively collaborated with universities, participated in job fairs at colleges, and organised special recruitment events to attract outstanding talents from diverse backgrounds.

#### Sunpower Group and Baoding Technical College of Electric Power Held a Symposium on School-Enterprise Collaboration

Sunpower Group, in its ongoing commitment to deepen collaboration between academia and industry and integrate vocational education with industrial development, aimed to enhance the alignment between vocational colleges and the needs of the industry, as well as match school subjects with the actual industry trends, corporate realities, and job requirements. On June 15, 2023, the Group organised a symposium on school-enterprise cooperation in partnership with Baoding Technical College of Electric Power. This symposium provided a platform for both sides to explore multi-level, multi-faceted, and multi-disciplinary opportunities for cooperation. It aimed to achieve a seamless integration and optimal allocation of resources between academia and industry and foster the cultivation of talents required for economic and social development. This initiative not only promoted a deeper integration between academia and industry but also laid a solid foundation for win-win outcomes.



Representatives from Both Sides at the Collaboration Symposium

#### Students and Faculty Members from Department of New Energy of Shandong University Visited Xintai Zhengda Project

On June 6, 2023, students and faculty members specialising in new energy from Shandong University visited Xintai Zhengda Project for a learning excursion. The students had the opportunity to tour various production sites, including the turbine room, generator units, the 8-meter platform of the boiler, and the cooling tower for circulating water. This hands-on experience allowed them to gain a comprehensive understanding of the entire process of power generation and heating supply and expand their knowledge of the technological processes in cogeneration power plants.

This visit further facilitated the collaboration between industry, academia, and research. Going forward, Xintai Zhengda Project will serve as a practical education centre for students majoring in new energy at Shandong University.



Students and Faculty Members from Shandong University Touring Production Sites

#### Leaders from the School of Environmental Engineering at Nanjing Institute of Technology Visited Sunpower Group

On May 26, 2023, leaders from the School of Environmental Engineering at Nanjing Institute of Technology visited Sunpower Group for an exchange symposium. During the meeting, both sides delved into a comprehensive analysis of the challenges and opportunities related to further education and employment, which are of mutual concern to both the academic institution and the enterprise. The leadership of the School of Environmental Engineering presented the Group with a plaque designating it as an "Off-Campus Practical Education Centre." By advancing academia-industry collaboration and integrating their respective resources, both sides explored more areas for cooperation through tangible initiatives and robust platforms. The goal is to cultivate an environment where academic disciplines, professional expertise, and industrial practices complement and reinforce each other. Together, we strive to establish a new paradigm of "win-win cooperation between academia and industry".



Environmental Engineering from Nanjing Institute of Technology at the Exchange Symposium



## Remuneration Benefits

Sunpower Group provides its employees with competitive and fair remuneration packages. In addition to basic benefits such as statutory holidays, endowment insurance, medical insurance, unemployment insurance, employment injury insurance, maternity insurance, and contributions to the housing provident fund, the Group offers personalised benefits including holiday bonuses, birthday allowances, health check-ups, travel opportunities, and supplementary commercial insurance.

To harness the full intrinsic drive of our workforce, we continuously refine our performance appraisal and incentive compensation system. This involves creating a positive incentive structure that motivates our employees. We assess key performance indicators of front-line staff quarterly, with results directly aligned with their annual incentive packages. Technical personnel benefit from specialised performance appraisal schemes, covering areas like HSE evaluation, biological quality scrutiny, and assessment of secondary production metrics. For senior management, we take a dual approach by evaluating their achievement of annual targets and key performance indicators, thereby linking the assessments to compensation.

## Employee Communication

Sunpower Group prioritises democratic communication, ensuring open channels for dialogue and establishing a robust two-way communication mechanism. We facilitate numerous avenues for communication between management and employees, including trade unions, workers' representative congresses, employee symposiums, and surveys. Moreover, we encourage employees to follow proper procedures for communication or appeals and uphold the principles of employee protection, fairness, and justice by promptly providing feedback.

The Group fully utilises the collective bargaining system to effectively coordinate labour relations. Furthermore, we regularly convene workers' representative congresses and employee symposiums to review and endorse various regulations, sign compliance documents, and continuously enhance democratic management practices. Additionally, in 2023, we conducted a comprehensive survey on employee satisfaction and engagement, achieving an impressive participation rate of 97.98%.

Through meticulous and standardised work practices, Sunpower Group was recognised as the "Nanjing Model Enterprise for Harmonious Labor Relations" in 2021. Additionally, various subsidiary companies such as Quanjiao, Suyuan, and Yongxing Plants were honoured with titles including "Model Enterprises for Harmonious Labor Relations" and "Trustworthy Organizations for Labor Protection" in their respective regions.

## Employee Care

Sunpower Group prioritises the physical and mental well-being of its employees, striving to cultivate a positive work environment and provide caring initiatives. We proactively organise a variety of recreational activities, including basketball games, marathons, birthday celebrations, table tennis competitions, fishing tournaments, and International Women's Day celebrations. These activities are designed to enrich the lives of our employees and assist them striking a work-life balance.

### Sunpower Group Organized "Sunpower" Cup Basketball Tournament

To enhance communication among subsidiaries within the Group and showcase their dedication and perseverance, Sunpower Group organised the "Sunpower Cup" basketball tournament from September 15th to 16th, 2023. After two days of intense competition and thrilling matches, this event not only enriched the cultural life of our employees but also strengthened their physical fitness and fostered greater team cohesion.



Contestants at Sunpower Cup Basketball Tournament

### Sunpower Organised Outings for Employees

Sunpower Group always emphasises the importance of work-life balance. During the Reporting Period, the Group organised outings for employees. This initiative offered outstanding employees an opportunity to rejuvenate themselves in nature. These activities were aimed at enriching employees' lives, relieving their stress, enjoying their work, and leading a fulfilling life.



Group Photos of Employees

### Sunpower Group Organised International Women's Day Celebrations

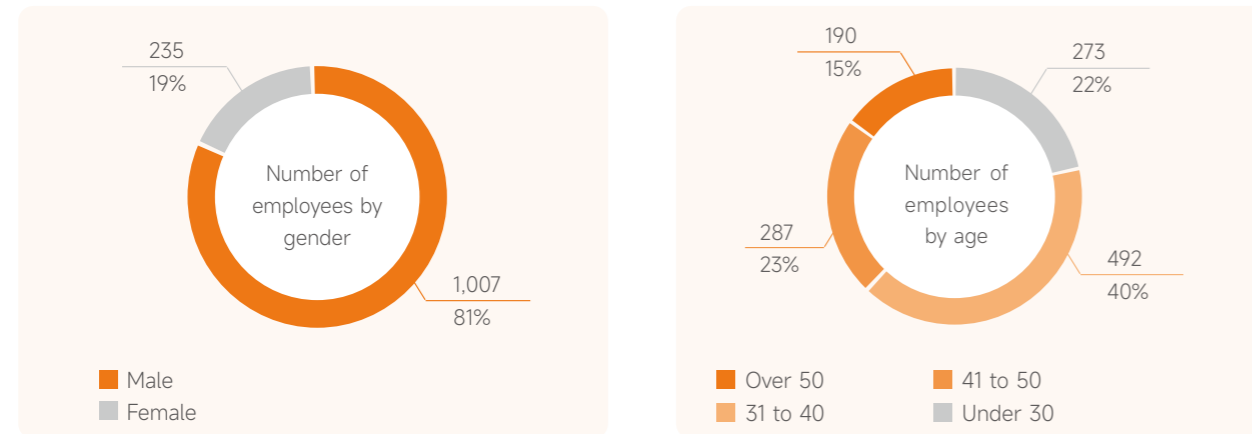
On the eve of International Women's Day, Sunpower Group organised a special celebratory event to honour the occasion. This comprehensive event featured a range of activities including DIY flower arrangement, specialised health check-ups for female employees, and wellness training tailored for women, alongside engaging team-building exercises. The Group's intention was not only to highlight the talents of its female workforce but also to underscore its commitment and support towards them. Through this meticulously planned event, female employees had the opportunity to engage in relaxed and enjoyable interactions, fostering a sense of camaraderie and appreciation within the organisation.



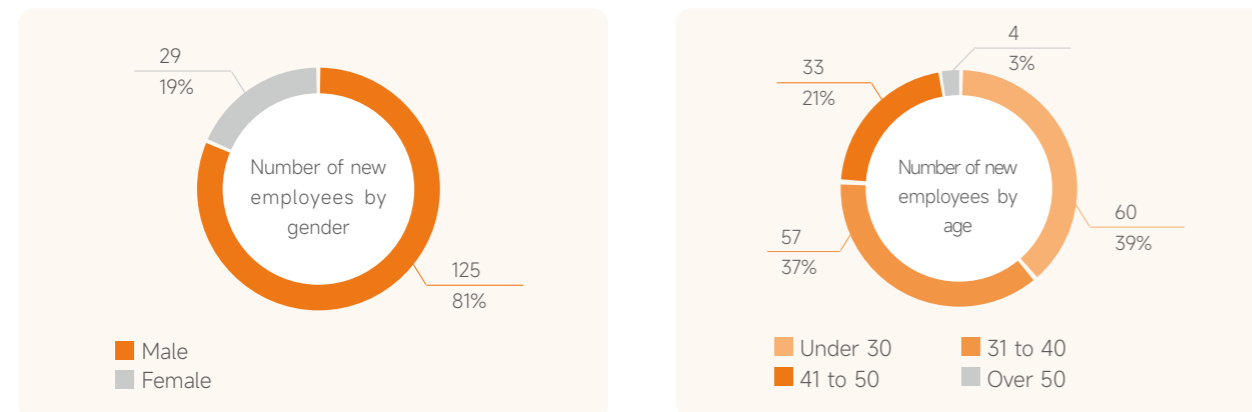
Women's Day Celebrations

## Performance

During the Reporting Period, Sunpower Group employed **1,242** employees.  
The following pie charts show the number of employees by age and gender:



During the Reporting Period, Sunpower Group welcomed **154** new employees.  
The following pie charts show the number of new employees by age and gender:



During the Reporting Period, **162** employees left their positions at Sunpower Group, with a staff turnover rate of **11.54%**.  
The following tables show the staff turnover rates by age and gender:

Staff turnover by age		2023	Unit
Under 30	23	%	
31 to 40	31	%	
41 to 50	26	%	
Over 50	19	%	
Staff turnover by gender		2023	Unit
Male	82	%	
Female	18	%	

## 3.4 Employee Training and Development

Sunpower Group prioritises the career development of its employees, recognising the importance of continuously enhancing their skills and capabilities. We offer our team members extensive opportunities for learning and growth, supported by a robust platform for advancement. Our goal is to empower each individual to achieve sustainable and high-quality development.

### Governance Structure and Policy

Sunpower Group emphasises the cultivation of talent pipelines, continuously refining talent development systems and promotion mechanisms. By implementing internal protocols such as the Employee Handbook and the Employee Training Management System, we provide systematic support to expand our employees' paths to professional growth.

### Our Measures

We have established a comprehensive learning and development system tailored to employees at all levels and job positions, covering various stages of their growth with customised development and training plans. This approach aims to enhance employees' knowledge, skills, and leadership capabilities across the board.

Our comprehensive training plan encompasses various stages of employee development. Through initiatives such as onboarding training, training camps for recent graduates, specialised skill training sessions, leadership development programmes, and training on corporate culture and standards, we ensure each employee has access to learning opportunities to build stronger business skills.

Sunpower Group actively collaborates with academic institutions and foster long-term partnerships with esteemed colleges such as Baoding Technical College of Electric Power, Shanxi Electric Power Technical College, Nanjing Institute of Technology, and Shandong University. In 2023, Shandong University recognised the Group as the "Practical Education for Students Specialising in New Energy," while Nanjing Institute of Technology designated it as an "Off-campus Practical Education" and presented commemorative plaques.

#### Sunpower Group Launched the "Xinsheng" Program for New Graduate Employees

We launched the "Xinsheng" Programme for new graduate employees to assist them in familiarising themselves with the corporate culture, relevant rules and regulations, and the overall environment at Sunpower Group, as well as to facilitate their integration and enhance their sense of belonging.

The training camp consists of two main phases: intensive training and advanced training. The first phase focuses on outdoor activities for team building, various module-based training sessions, examinations, and task summaries. The second phase covers performance appraisal for becoming a permanent employee, specialised knowledge enhancement, practical skill development, and mentorship. The goal is to enhance the overall competencies of recent graduates and promote well-rounded development.



New Graduate Employees at the "Xinsheng" Training Camp

### Training on Corporate Culture and Standards

During the Reporting Period, Sunpower Group took significant steps to enhance its corporate culture. This included the development of a comprehensive *Corporate Visual Identity (VI) Manual* and the standardisation of visual systems to enrich the depth of corporate culture and improve its public image. Additionally, the Group implemented initiatives such as the design of an internal magazine and cultural publicity columns, alongside targeted awareness and training campaigns. These endeavours aim to effectively disseminate corporate culture throughout the organisation, fostering a stronger sense of identity and belonging among employees.



Participants at the Training Sessions

### Sunpower Group Conducted a Specialised Training Camp for Enhancement of Production Management Capability

To further enhance the management skills and mindset of our production management teams across project companies, as well as fortify our talent pipeline and succession planning, Sunpower Group organised a Specialised Training Camp for Enhancement of Production Management Capability from June 29th to 30th, 2023. Outstanding managers and technical experts in production technology attended the training sessions.

The programme included a variety of lectures on relevant topics, such as "Identity Perception of a Manager," "Refinement Strategies in Production Management," "A Business-Centric Approach to Production Oversight," and "Insights from Real-World Production Management Scenarios.", allowing participants to leverage different perspectives and experiences to explore various aspects of production management. It is aimed to elevate the managerial proficiency and technical capabilities of participants, as well as establish a platform for collaboration and knowledge exchange among project companies.



Participants at the Specialised Training Camp

### Sunpower Group Conducted Training on Contract Signing and Performance Risk Management

In March 2023, Sunpower Group conducted comprehensive training sessions on contract signing and performance risk management, covering the operational and engineering management divisions. These sessions meticulously dissected the processes involved in contract drafting and execution, elucidated the standards of contractual language, and provided insights into dispute resolution mechanisms. The aim was to bolster the performance risk management capabilities of employees across the operational and engineering management lines.

## Performance

In 2023, the average training duration per employee was **29.06** hours. The following table shows the average training time by gender.

Average training time by gender		2023	Unit
Male	29		Hours
Female	29		Hours

## 3.5 Occupational Health and Safety

Sunpower Group is committed to fostering a culture of work safety. Leveraging its internal governance framework, the Group collaborates across departments and subsidiaries to advance safety management initiatives and build upon the outcomes of occupational health and safety training and drills. Our aim is to provide all employees with a safe and healthy workplace.

### Governance Structure and Policy

Sunpower Group firmly upholds the concept of workplace safety and remains committed to providing all employees with a safe and healthy work environment. The Group strictly follows all applicable laws and regulations where it operates, including the *Work Safety Law of the People's Republic of China* and the *Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases*. We have established a series of internal control mechanisms such as the *Safe Work through Standardisation of Construction Work Management System*, the *Provisions on Safe Work Management of Engineering Construction Projects*, the *Measures for the Management of Potential Safety Hazards*, the *Regulations on Occupational Health and Safety*, the *Safety and Environmental Accidents (Incidents) Management System*, and the *Management of Labor Protection Supplies System*.

Guided by the principle of "Comprehensive Management of Safety and Prevention as the Top Priority", Sunpower Group released the *Notice on Adjustments to the Composition of Members of the Safe Production Committee of Sunpower Clean Energy Investment (Jiangsu) Co., Ltd.*, aiming to refine the organisational structure of the Committee and its office and guiding the Group's efforts in occupational health management. The Work Safety Committee convenes regularly to discuss and address significant occupational health issues. The Group and its subsidiaries have established an HSE Department as a specialised agency for occupational health supervision and management. This department supervises and identifies occupational health issues and provides recommendations for rectification and adjustment. Sunpower Group has also established a robust work safety responsibility system for departments and personnel at all levels, requiring them to sign letters of responsibility on work safety targets and thereby linking their safety performance with assessment results. During the Reporting Period, no significant work safety incidents occurred.

### Our Measures

#### Safety Management Assurance

Sunpower Group remains steadfast in its commitment to enhancing work safety standards, implementing a robust dual-prevention mechanism for graded risk control and hidden danger investigation and remediation. We have established and enforced a comprehensive responsibility system for work safety, coupled with intensified safety education and training initiatives and regular emergency drills, all aimed at minimising potential risks within our operational environment.

The Group implements a comprehensive set of safety measures across all aspects of production and operations. Before project commencement, we provide extensive safety training for all construction personnel, ensuring compliance with national, industry, and corporate safety regulations. Admission to the construction site is subject to passing an examination. Subsequently, we conduct weekly safety inspections involving all project stakeholders to proactively mitigate any safety hazards.

Furthermore, we place paramount importance on addressing employee needs by continuously strengthening occupational safety measures. This involves providing relevant equipment, conducting comprehensive training on equipment usage, facilitating regular health examinations, and rigorously monitoring occupational hazards to safeguard the physical and mental wellbeing of our workforce. During the Reporting Period, Shantou Project and Tongshan Project were recognised as Power Safety and Production Standardisation Enterprises (Level 2), and Lianshui Project was rated as an Industry and Trade Safety and Production Standardisation Enterprise (Level 3).

### Occupational Health and Safety Management System

Through the establishment and implementation of HSE management standards, the Group seamlessly incorporated HSE management requirements into its daily business operations. This enhances our overall management practices and fosters a healthy and safe working environment, ultimately achieving the sustainable development objectives set by the Group. During the Reporting Period, Changrun Project and Shantou Project obtained certification for their occupational health and safety management systems.



Occupational Health and Safety Management System Certification

## Safety Awareness Enhancement

During the Reporting Period, Sunpower Group conducted a series of training programmes, including "Environmental and Occupational Health and Safety Management System Training," "Workplace Safety Month Activities," "Workplace Safety Incidents Awareness-Raising and Education Week," "Occupational Disease Prevention and Control Law Promotion Week," and organised emergency drills. These initiatives foster a positive safety culture, heightening safety awareness among employees and mitigating safety incidents.

### Sunpower Group Conducted Environmental, Occupational Health, and Safety Management System Training

On June 6, 2023, Sunpower Group took proactive measures to bolster its environmental, occupational health, and safety management capabilities and eliminate potential hazards in this area. By inviting external experts, the Group organised an extensive Environmental and Occupational Health and Safety Management System Training. A total of 154 participants from the headquarters and subsidiaries attended the training session, systematically reviewed the standardised systems, processes, and documentation pertaining to HSE management.

### Sunpower Group Organised Workplace Safety Month Activities

In June 2023, Sunpower Group launched the 22nd edition of the nationwide "Workplace Safety Month" campaign at its Nanjing headquarters. The theme of the campaign was "Safety: A Shared Responsibility, Emergency Preparedness: A Shared Skill." Through strategic measures like displaying thematic banners, establishing safety promotion bulletin boards, and showcasing safety awareness videos, the Group successfully raised the promotional efforts for the campaign. These endeavours contributed significantly to fostering a robust safety culture and augmenting the safety consciousness among the workforce.



Poster for "Safety: A Shared Responsibility, Emergency Preparedness: A Shared Skill"

To further promote the 22nd National Workplace Safety Month initiative, Sunpower Group, on June 27, 2023, hosted the "Safety and Wellness Cup" safety knowledge competition (also under the theme "Safety: A Shared Responsibility, Emergency Preparedness: A Shared Skill") at its Nanjing headquarters. Through this competition, employees were equipped with a more comprehensive understanding of safety protocols, enhancing their awareness and proficiency in safety measures. This initiative further reinforced the implementation of a work safety responsibility system, effectively preventing and controlling the occurrence of safety incidents.



Contestants at the "Safety and Wellness Cup" Competition

### Sunpower Group Unveiled the Workplace Safety Incidents Awareness-Raising and Education Week

To effectively implement work safety protocols, bolster safety management efforts, and foster a safe culture across our organisation, Sunpower Group hosts the Workplace Safety Incidents Awareness and Education Week annually. This initiative, aligned with the theme "No Safety Issue Is Insignificant—Vigilance Is Key," included various activities such as case studies of accidents, educational video screenings on safety precautions, and employee forums and workshops. Through these engagements, project companies can delve into the underlying causes of accidents, learn profound lessons, and heighten employees' work safety awareness.



Xinyuan Plant



Shantou Project

### Sunpower Launched Occupational Disease Prevention and Control Law Promotion Week

From April 25th to May 1st, 2023, Sunpower Group launched the Occupational Disease Prevention and Control Law Promotion Week. The initiative was aimed at disseminating knowledge on occupational disease prevention and health tips, and foster a culture of concern for occupational health across the entire organisation.

This event featured a combination of offline and online strategies. Offline tactics included hanging thematic banners, posting slogans, displaying educational posters, and distributing informative materials such as manuals, brochures, and flyers. Meanwhile, online engagement involved activities like surveys, quizzes, and video lectures to promote awareness and build skills among employees. The goal was to cultivate a culture where occupational health is a priority, encouraging everyone to become health-conscious individuals.



Promotional Photos for Occupational Disease Prevention and Control Law Promotion Week

### Sunpower Organised Emergency Drills

To effectively minimise the impact of unforeseen accidents on personnel and equipment, and ensure the sustained safety and stability of units, Sunpower Group upholds the principle of "giving priority to protection, putting prevention first, and comprehensive management." Aligned with the theme of the Workplace Safety Month, "Safety: A Shared Responsibility, Emergency Preparedness: A Shared Skill," the Group conducted a series of emergency drills across our project companies. These drills simulated scenarios including fires, hazardous chemical leaks, and accidents involving production facilities. By bolstering collaboration with local emergency management, firefighting, and disease control authorities, we strengthened our comprehensive emergency response capabilities and elevated the standards of our emergency management practices.



Changrun Project Organised the 2nd Firefighting Drill



Yongxing Plant Organised Specialised Emergency Drill for Fire and Explosion Incidents



Xinyuan Plant Organised the Firefighting Practical Drill



Quanjiao Project Organised the Firefighting Drill

## Performance

Indicator	2023	Unit
Number of work-related injuries	0	Case
Number of workdays lost due to work-related injuries	0	Day
Number of work-related deaths	0	Person
Number of occupational diseases	0	Case
Number of fatalities due to occupational diseases	0	Person
Coverage rate of occupational health and safety training for employees	100	%
Coverage rate of occupational health and safety risk assessments	100	%
Coverage rate of employees covered by an occupational health and safety system	100	%

## 3.6 Supply Chain Management

Effective procurement management is key for Sunpower Group to promptly meet customer needs with consistent quality. We are dedicated to fostering transparent and mutually beneficial relationships with our suppliers. Through the implementation of standardised supplier management mechanisms, we ensure the stability of our supply chain. Additionally, we prioritise Environmental, Social, and Governance (ESG) factors in our admission and management processes, thereby collaboratively creating a sustainable supply chain with our valued suppliers.

### Governance Structure and Policy

Sunpower Group adheres to all applicable laws and regulations where it operates, including the Bidding Law of the People's Republic of China, while meticulously establishing internal systems like the *Measures on Supplier Management*, the *New Application Process for Suppliers*, the *New Evaluation and Re-evaluation Process for Suppliers*, and the *Supplier Suspension/ Cancellation Process*. These measures continuously refine our internal supply chain management framework. We have established a robust supplier management process, which includes entry assessment, risk identification, performance evaluation, corrective action implementation, and exit mechanisms. Through our Supplier Evaluation OA process, we ensure suppliers receive fair and accurate assessments throughout the entire management cycle.

### Our Measures

#### Supplier Entry

Sunpower Group consistently prioritises a robust supply chain management system as a fundamental pillar for delivering high-quality products. The Group has implemented a comprehensive and rigorous supplier entry process. During this phase, we require suppliers to provide qualification documents such as business licenses, corporate credit reports, and tax payment certificates. Additionally, we conduct detailed on-site investigations into various aspects of suppliers, including their business scale, fixed assets, and coal testing laboratories, to ensure they possess a strong commercial reputation and robust performance capabilities.

Additionally, the Group integrates environmental and social sustainability requirements into the supplier entry assessment process. Depending on the supplier type, we request certification documents related to their systems. Furthermore, we conduct thorough background checks on all suppliers, considering sustainable development criteria such as prohibiting child labour, ensuring wages meet or exceed local minimum wage standards, evaluating environmental performance, and assessing business ethics as part of the relevant assessment metrics.

#### Supplier Assessment

Sunpower Group employs a tiered management approach, categorising suppliers based on risk levels and substitutability. Through routine evaluations of supplier qualifications and comprehensive risk assessments, we enhance supplier management efficiency and proactively mitigate potential risks within our supply chain.

To ensure premium and stable supply chains, the Group has developed the New Supplier Evaluation Form and the Supplier Re-evaluation Form. These protocols are used by a specialised evaluation team to conduct regular assessments. Annually, we conduct on-site inspections or distribute written surveys to assess specific supplier risks and develop corresponding risk mitigation strategies. We closely monitor supplier performance by evaluating feedback submitted by project companies on the quality of goods and services provided by various suppliers. For suppliers whose evaluations fall short of our standards, we issue corrective action documents, mandating improvements within a specified time frame. For those who consistently fail to meet expectations, we gradually phase out our collaboration with them.

## Performance

Indicator	2023	Unit
Number of suppliers	950	Enterprises

## 3.7 Contribution to the Community and Society

Sunpower Group encourages its employees to actively participate in volunteer and community activities. We maintain robust communication with government agencies and non-governmental organizations, and strive to play a positive role in public welfare and community engagement initiatives.

### Our Measures

Sunpower Group deeply embraces its social responsibility by seamlessly integrating philanthropy into its daily operations. We consistently extend support to society and remain committed to sharing our development outcomes with the wider community. During the Reporting Period, the Group actively organised or participated in philanthropic initiatives such as volunteer efforts on Learn From Lei Feng Day, flood relief endeavours, expressions of gratitude to local firefighters, engagement in street and community clean-up campaigns, and voluntary blood donations. These efforts highlight our steadfast commitment to fulfilling our corporate social responsibilities.

#### Yongxing Plant Held Special Event on Learn from Lei Feng Day

On March 5, 2023, Yongxing Plant held a special event on Learn From Lei Feng Day, with the theme of "Learning from Lei Feng's Spirit, Beautifying Our Home Environment." We organised various initiatives, including community blessings, environmental conservation efforts, public health advocacy, waste sorting education, and port cleanliness campaigns. CPC members fully embodied their exemplary role by taking an active part in the activities. Inspired by them, participants also embraced Lei Feng's ethos of selflessness and dedication, wholeheartedly engaging in the activities.

Through this event, Yongxing Plant significantly contributed to fostering a green and civilised community, while enhancing environmental awareness among all employees. This initiative played a pivotal role in creating a better working environment and promoting the values of the Sunpower culture.



Volunteers Participating in Learn from Lei Feng Activities

#### Standing Together with Zhuozhou to Tide Over Difficulties

On July 29, 2023, Zhuozhou of Hebei Province was plagued by unprecedented flooding caused by Typhoon Doksuri. Responding to the urgent need for a large quantity of towels in the disaster-stricken area, Changrun Project actively assumed its social responsibility and responded to the call from the Gaoyang County CPC Committee and Government. The company organised the donation of towels for emergency relief to Zhuozhou and then Gaoyang County Armed Forces delivered them directly to local residents.



Changrun Project Donated Supplies to Zhuozhou

#### Xinyuan Plant Mobilised Employees to Clean Up the Streets in the Community

In September 2023, Xinyuan Plant responded actively to the call of the government by launching the "Revitalising the Countryside" initiative, mobilising volunteers to conduct a comprehensive clean-up of the village community. Volunteers from the company were grouped into cleaning teams and equipped with tools to sweep along the main streets of Lanjiazhuang Village. The event unfolded in a highly organised manner, with volunteers demonstrating remarkable synergy and coordination, resulting in a rejuvenated environment for Lanjiazhuang Village.



Volunteers Cleaning Up the Environment

In terms of community engagement, local authorities have made numerous on-site visits to various project companies. Additionally, delegations from the Ministry of Foreign Affairs have inspected the circular economy industrial park within these companies. Through direct interactions, these engagements have strengthened the bonds between governmental bodies and enterprises, contributing to the robust development of Sunpower Group.

### Local Authorities Sent Officials to Inspect Project Companies

In 2023, the governments of Yuncheng City and Xinjiang County embarked on a field study to gain deeper insights into the progress of Shanxi Xinjiang Project's construction progress. Through extensive discussions, government entities delved into the specific measures undertaken by Shanxi Xinjiang Project concerning technological innovation, the application of advanced technologies, and energy efficiency strategies. Their aim was to further propel the development of the energy island within the development zone and drive value chain development. Furthermore, both sides underscored the importance of work safety. Shanxi Xinjiang Project was urged to integrate safety awareness throughout all operational aspects, ensuring prompt identification and mitigation of potential hazards. This concerted effort provided a robust foundation for the company's swift production activities and steadfast growth trajectory.



Officials From Yuncheng City Government Inspected Shanxi Xinjiang Project



Officials From Xinjiang County Government Inspected Shanxi Xinjiang Project

Additionally, officials from Xinjiang County government conducted several on-site visits to the headquarters of Sunpower Group in Nanjing to foster mutual understanding and drive the Group's development forward. Both sides engaged in thorough discussions on various topics including enterprise operations, technological innovation, and market expansion, with a shared objective of charting the future path for the Group's high-quality development. These visits not only strengthened the communication between the government and the enterprise but also laid a solid foundation for further collaboration.



Officials From Xinjiang County Government Visited the Headquarters of Sunpower Group

### Delegation from the Ministry of Foreign Affairs Inspected Changrun Project's Circular Economy Industrial Park

On February 20, 2023, a delegation of over 60 members from the Ministry of Foreign Affairs visited Changrun Project for an on-site inspection focusing on the development of the circular economy.

During the visit, the delegation learned about Gaoyang County's integrated circular economy industrial chain, encompassing textile printing and dyeing, sewage treatment, water recycling, centralised heating, waste heat power generation, and brick production using slag ash. They also gained insights into the overview and environmental indicators of the company, engaging in in-depth discussions regarding the current status of its circular economy. Impressed by the achievements observed during the field visit, the delegation expressed appreciation for Gaoyang County's integrated circular economy model and Changrun Project's commitment to energy conservation and emission reduction. Looking ahead, we will promote the best practices of Sunpower Group on energy conservation, environmental protection, and circular economy industrial park internationally, thereby facilitating the development of the entire industrial chain.



Delegates from the Ministry of Foreign Affairs Visiting Changrun Project

## Performance

Indicator	2023	Unit
Employee volunteer hours	408	Hour



# 04. Governance

## SDGs



## GRI metrics

GRI 2, GRI 3, GRI 201, GRI 205, GRI 206, GRI 405

A robust and scientifically sound governance system is crucial for ensuring a company's steady and sustainable progress. Sunpower Group is committed to upholding compliance standards, strengthening its governance framework, regulating ethical business practices, and fostering a culture of integrity and self-discipline among its workforce. We continuously refine our internal control management system, implement risk mitigation measures, and endeavour to reduce risks across all areas, with the overarching objective of building a solid foundation for sustainable growth.





## 4.1 Operational and Economic Performance

As a trailblazer of circular economy, Sunpower Group remains steadfast to addressing the heating demands of the industrial and residential sectors. We achieve this by employing low-emission, environmentally friendly, and energy-efficient patented technologies. Deeply engaged in research, development, investment, construction, and operational management, our projects span centralised heating, combined heat and power generation, and environmental engineering within the circular economy framework. Our strategic outlook and business trajectory seamlessly align with national policies on environmental protection and energy conservation, aiming to provide users with economically viable, stable, and efficient clean energy solutions. By mitigating emissions of pollutants and safeguarding ecological integrity, we are dedicated to achieving material recycling and multi-level energy utilisation.

We are strategically focusing on the green investment (GI) business, seizing the opportunities arising from the energy transition. With a firm commitment to the clean energy sector, we have successfully implemented 11 GI projects by the end of the Reporting Period. Leveraging the strengths of an integrated energy value chain, we have achieved consistent growth in business performance, while actively driving green and low-carbon economic and social development forward.

### Performance

In 2023, Group revenue reached

**RMB 3.403 billion**

and total assets stood at

**RMB 7.629 billion**



## 4.2 Corporate Governance

Sunpower Group places paramount emphasis on operating within compliance limits, continuously refining its corporate governance structure to enhance management efficacy and propel the Group's steadfast growth. We have implemented a robust risk control system, seamlessly integrating our operations with social responsibilities, and actively expediting the Group's high-quality development. This endeavour elevates our overall governance practices to new heights.

### Governance Structure

Sunpower Group rigorously adheres to all applicable laws and regulations where it operates, including the Code of Corporate Governance 2018. The Group refines its governance structure and enhances its management capabilities on an ongoing basis, developing a governance framework that establishes a clear and efficient governance system. The Board of Directors comprised eight members, which included one female director.

The Board of Directors oversees various committees, such as the Nominating Committee, the Remuneration Committee, the Audit Committee, the Independent Committee, the Risk Management Committee, and the Sustainable Development Committee. Each committee is assigned specific duties and responsibilities and has formulated a series of effective management and oversight policies.

We prioritise communication with investors and information disclosure. Adhering to the guidelines set forth for publicly listed companies, we provide disclosures of information, thereby enhancing the quality and transparency of our corporate reporting. We ensure equitable treatment of all shareholders, regularly convening both annual and special shareholder meetings to facilitate communication and exchange. This underscores our dedication to protecting shareholder rights and creating long-term shareholder value.

### Board Diversity

Sunpower Group has implemented a *Board Diversity Policy*, designed to ensure a diverse and professional composition of Board members by considering factors such as gender, background, knowledge, skills, and industry experience. Our Board members contribute expertise from various fields, including chemistry, engineering, investment, finance, auditing, business administration, law, and social sciences. This diverse skill set enables the Board to offer comprehensive guidance for the Group's journey toward stable and sustainable operations.

### Performance

As of the end of the reporting period, Female directors accounted for of the Board

**13%**

women comprised of the management team

**33%**

Independent directors represented of the Board

**50%**

### Risk Management

Sunpower Group has established a comprehensive risk management framework with a clearly defined organisational structure for risk oversight and control. We regularly convene Risk Management Committee meetings to analyse and develop strategies to mitigate various operational risks. Our array of internal control protocols, combined with proactive risk prevention measures, underscores our commitment to implementing short, medium, and long-term risk management strategies.

The Group has implemented policies and protocols regarding anti-corruption, conflict of interests, insider trading, fraud prevention, and whistleblowing, ensuring a robust defence against various risks. Furthermore, we strengthen our risk management capabilities through a combination of internal audit and control mechanisms, consistently bolstering our resilience to risks. Additionally, the establishment of a Sustainable Development Committee and the integration of ESG factors into our risk management framework further advance the Group's journey towards sustainability. For detailed information on the Sunpower Group's governance, please refer to our Annual Report for FY2023.

## 4.3 Business Ethics and Anti-corruption

Sunpower Group maintains high standards of business ethics across our operations and holds our partners and suppliers to the same expectations. Through regular audits, we ensure financial transparency and compliance, while also fostering a mechanism that encourages employees to report misconduct. Additionally, we provide anti-corruption training to enhance the compliance awareness of staff members and uphold ethical principles.

### Governance Structure and Policy

Sunpower Group continuously strengthens its anti-corruption and business ethics management framework. Through collaborative efforts among the Office of the President, the Internal Control Department, and the Human Resources Department, a series of regulations have been formulated, including the System of Honest Performance of Duties, the *Business Secret Management Regulations*, and the *Employee Handbook: Confidentiality Policy*. These regulations aim to guide and mandate all employees to conduct their work with integrity and honesty. Additionally, the Group ensures transparency by informing all stakeholders, with whom we have direct or indirect business relations, about its stance against commercial bribery through contractual agreements.

### Our Measures

#### Internal Audit and Control

Sunpower Group has implemented robust internal audit and control procedures to identify high-risk business activities, analyse potential dangers, and assess the severity of their impact. During the Reporting Period, the Internal Control Department organized various divisions to conduct integrity risk assessments on key business matters and formulated targeted risk prevention and response strategies. Furthermore, to ensure stronger compliance, we have required all departments to conduct annual self-assessments and engaged external third-party organizations to perform internal control evaluations, combining internal and external efforts to carry out risk control measures.



### Reporting Mechanism

We strongly encourage employees to report any violations of ethical standards and legal regulations. We highly prioritise whistleblower protection and have established and implemented a Whistleblower Management System. This protocol outlines the reporting channels, scope, procedures, confidentiality, protection against retaliation, and handling of malicious reports, with a key focus on protecting the identity of whistleblowers. The Group provides multiple reporting channels for employees and other stakeholders, including email, hotline, and mail.

### Training on Integrity Culture

Sunpower Group is dedicated to instilling a culture of business ethics across all aspects of its operations, engaging every employee fully. We ensure that all policies and procedures are clearly communicated to each staff member, fostering an environment of integrity, honesty, and compliance. Every employee is required to sign a Commitment Letter of Honest Practices. Furthermore, we regularly disseminate the *System of Honest Performance of Duties* to directors and all employees, and conduct anti-corruption training.

#### Anti-corruption Training

To ensure that a culture of business ethics permeates every level of Sunpower Group, we continuously provide ethics training for employees.

During the Reporting Period, the Group conducted specialised anti-corruption training sessions and lectures for personnel involved in procurement activities. The training delved into discussions on maintaining integrity and preventing corruption in their work, covering innovative management methods, optimising evaluation models, ensuring the effectiveness of supplies delivery, strengthening cost controls, enhancing the rationality of procurement plans, refining supplier management, and optimising payment processes. Our aim is to fortify defences against unethical behaviours across the board and ensure fairness, transparency, and efficiency in procurement operations.

### Performance

Indicator	2023	Unit
Coverage Rate of Business Code of Conduct	100	%
Number of Employees Attending Anti-Corruption Training	1,242	Person
Coverage Rate of Anti-Corruption Training	100	%

# Appendix

## Annex I Key Performance Indicators

Indicator	2023	Unit	
Greenhouse Gas Emissions	Total greenhouse gas emissions	356.74	10,000 tons
	Direct (Scope 1) greenhouse gas emissions	3,564,302.50	Ton of carbon dioxide
	Indirect (Scope 2) greenhouse gas emissions	3,130.40	Ton of carbon dioxide
	Greenhouse gas (steam and heating supply) emission intensity	0.1029	Ton/GJ
	Greenhouse gas (electricity supply) emission intensity	0.3947	Ton/MWH
	Direct (Scope 1) greenhouse gas (steam and heating supply) emission intensity	0.1028	Ton/GJ
	Direct (Scope 1) greenhouse gas (electricity supply) emission intensity	0.3944	Ton/MWH
	Indirect (Scope 2) greenhouse gas (steam and heating supply) emission intensity	0.0001	Ton/GJ
Indirect (Scope 2) greenhouse gas (electricity supply) emission intensity	0.0003	Ton/MWH	
Energy	Total energy consumption	4,616.72	10,000 GJ
	Energy consumption intensity (measured in kilograms of standard coal consumption per ton of steam produced)	104.55	Kg/ton
	Electricity consumption	37,309.88	10,000 KWH
	Electricity consumption intensity (measured in kilowatts of electricity consumption per ton of steam produced)	24.76	KWH/ton
Water	Total water consumption	1,447.91	10,000 tons
	Water consumption intensity (measured in tons of water consumption per ton of steam sold)	1.45	Ton of Water/ ton of steam
Wastewater	Total amount of wastewater discharge	266.95	10,000 tons
	Wastewater discharge rate	0.18	Wastewater discharge amount/water consumption amount
Waste	Amount of hazardous waste generated	52.21	Ton
	Amount of non-hazardous solid waste generated	608,726.03	Ton
	Waste discharge rate	0.04	Ton of steam
	Treatment/disposal rate of solid waste	100	%

Indicator	2023	Unit		
Waste Gas	Nitrogen oxide (NO <sub>x</sub> ) emissions	476.43	Ton	
	Sulfur oxide (SO <sub>x</sub> ) emissions	256.54	Ton	
	Dust emissions	48.15	Ton	
Operation rate of environmental protection facilities	100	%		
Employment	Total number of employees	1,242	Person	
	Gender	Male employee	1,007	Person
		Female employee	235	Person
	Age	Under 30	273	Person
		31-40	492	Person
		41-50	287	Person
		Over 50	190	Person
	Total number of new employees	154	Person	
	Number of new employees by gender	Male employee	125	Person
		Female employee	29	Person
	Number of new employees by age	Under 30	60	Person
		31-40	57	Person
		41-50	33	Person
		Over 50	4	Person
	Number of staff attrition	162	Person	
Employee turnover	11.54	%		
Staff turnover by gender	Male employee	82	%	
	Female employee	18	%	
Staff turnover by age	Under 30	23	%	
	31-40	31	%	
	41-50	26	%	
	Over 50	19	%	

## Annex II SGX Core ESG Metrics Index

Indicator	2023	Unit	
Training and development	Average training time of employee	29,06 Hour	
	Average training time of employee by gender	Male employee	29 Hour
		Female employee	29 Hour
Health and safety	Number of work-related injuries	0 Case	
	Number of workdays lost due to work-related injuries	0 Day	
	Number of work-related deaths	0 Person	
	Number of occupational diseases	0 Case	
	Number of fatalities due to occupational diseases	0 Person	
	Coverage rate of occupational health and safety training for employees	100 %	
	Coverage rate of occupational health and safety risk assessments	100 %	
	Coverage rate of employees covered by an occupational health and safety system	100 %	
	Percentage of female board members	13 %	
	Percentage of women in the senior management	33 %	
Percentage of independent board members	50 %		
Corruption lawsuits	0 Case		
Training session on business ethics and anti-corruption	People participated	1,242 Person	
	Participation rate	100 %	
Complaints caused by product quality failing to meet user requirements	0 Case		
Total number of suppliers	950 Enterprises		
Employee volunteer hours	408 Hour		

Indicator	Index		
Environmental	Greenhouse Gas Emissions	Absolute emissions by: (a)Total; (b) Scope 1, Scope 2;and (c) Scope 3, if appropriate Emission intensities by: (a)Total; (b) Scope 1, Scope 2; and (c) Scope 3, if appropriate	37 37
	Energy Consumption	Total energy consumption	33
		Energy consumption intensity	33
	Water Consumption	Total water consumption	33
		Water consumption intensity	33
	Waste Generation	Total waste generated	29
Social	Gender Diversity	Current employees by gender	50
		New hires and turnover by gender	50
	Age-Based Diversity	Current employees by age groups	50
		New hires and turnover by age groups	50
	Employment	Total turnover	50
		Total number of employees	50
	Development & Training	Average training hours per employee	52
		Average training hours per employee by gender	52
	Occupational Health & Safety	Fatalities	56
		High-consequence injuries	56
Recordable injuries		56	
Recordable work-related ill health cases		56	
Governance	Board Composition	Board independence	65
		Women on the board	65
	Management Diversity	Women in the management team	65
	Ethical Behaviour	Anti-corruption disclosures	67
		Anti-corruption training for employees	67
	Certifications	List of relevant certifications	24, 53
Alignment with Frameworks	Alignment with frameworks and disclosure practices	4-5	
Assurance	Assurance of sustainability report	We have not sought external assurance for FY2023	

## Annex III GRI Standard Index

Statement of Use	Sunpower has reported the information cited in this GRI content index for the period January 1, 2023 to December 31, 2023 with reference to the GRI Standard
GRI 1 used	GRI 1: Foundation 2021

GRI Standard	Disclosure	Location
GRI 2: General Disclosures 2021		
The organization and its reporting practices		
2-1	Organizational details	7-9
2-2	Entities included in the organization's sustainability reporting	4-5
2-3	Reporting period, frequency and contact point	4-5
2-4	Restatements of information	No
Activities and works		
2-6	Activities, value chain and other business relationships	7-9, 57
2-7	Employees	46-50
2-8	Workers who are not employees	46-50
Governance		
2-9	Governance structure and composition	65
2-10	Nomination and selection of the highest governance body	65
2-11	Chair of the highest governance body	65
2-12	Role of the highest governance body in overseeing the management of impacts	65
2-13	Delegation of responsibility for managing impacts	14-15, 65
2-14	Role of the highest governance body in sustainability reporting	15
2-15	Conflicts of interest	65-67
2-16	Communication of critical concerns	20-21
2-17	Collective knowledge of the highest governance body	15
2-18	Evaluation of the performance of the highest governance body	14
2-19	Remuneration policies	46, 48
2-20	Process to determine remuneration	48
Strategy, policies and practices		
2-22	Statement on sustainable development strategy	18-19
2-23	Policy commitments	46, 57, 66
2-24	Embedding policy commitments	46, 57, 66

GRI Standard	Disclosure	Location
2-25	Processes to remediate negative impacts	66-67
2-26	Mechanisms for seeking advice and raising concerns	66-67
2-27	Compliance with laws and regulations	66-67
2-28	Membership associations	10-11
Stakeholder engagement		
2-29	Approach to stakeholder engagement	20-21
GRI 3: Material Topics 2021		
3-1	Process to determine material topics	16-17
3-2	List of material topics	16-17
3-3	Management of material topics	16-17
Material Issues		
GRI 201: Economic Performance 2016		
201-1	Direct economic value generated and distributed	64
201-2	Financial implications and other risks and opportunities due to climate change	35-36
201-3	Defined benefit plan obligations and other retirement plans	48-49
GRI 203: Indirect Economic Impacts 2016		
203-1	Infrastructure investments and services supported	40-42, 58-61
203-2	Significant indirect economic impacts	58-61
GRI 205: Anti-corruption 2016		
205-1	Operations assessed for risks	66-67
205-2	Communication and training about anti-corruption policies and procedures	66-67
205-3	Confirmed incidents of corruption and actions taken	66-67
GRI 206: Anti-competitive Behaviour 2016		
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	66-67
Environment		
GRI 302: Energy 2016		
302-1	Energy consumed within the organization	33
302-3	Energy intensity	33
302-4	Reduction of energy consumption	30-33
302-5	Reductions in energy requirements of products and services	30-33
GRI 303: Water and Effluents 2018		
303-1	Interaction with water as shared resource	31-32
303-2	Management of water discharge-related impacts	26-27
303-3	Water withdrawal	31-33

GRI Standard	Disclosure	Location
303-4	Water discharge	26-27, 29
303-5	Water consumption	31-33
GRI 305: Emission 2016		
305-1	Direct (Scope 1) GHG emissions	33
305-2	Energy indirect (Scope 2) GHG emissions	33
305-4	GHG emission intensity	33
305-7	Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), and other significant air emissions	29
GRI 306: Waste 2020		
306-1	Waste generation and significant waste-related impacts	26
306-2	Management of significant waste-related impacts	26
306-3	Waste generated	26, 29
306-4	Waste diverted from disposal	26, 29
306-5	Waste directed to disposal	26, 29
GRI 308: Supplier Environmental Assessment 2016		
308-2	Negative environmental impacts in the supply chain and actions taken	57
Social		
GRI 401: Employment 2016		
401-1	New employee hires and employee turnover	50
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	48-49
GRI 403: Occupational Health and Safety 2018		
403-1	Occupational health and safety management system	53
403-2	Hazard identification, risk assessment, and incident investigation	53-56
403-3	Occupational health services	53-56
403-4	Worker participation, consultation, and communication on occupational health and safety	53-56
403-5	Worker training on occupational health and safety	54-56
403-6	Promotion of worker health	53-56
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	53-56
403-8	Workers covered by an occupational health and safety management system	56
403-9	Work-related injuries	56
GRI 404: Training and Education 2016		
404-1	Average hours of training per year per employee	52
404-2	Programs for upgrading employee skills and transition assistance programs	51-52
GRI 405: Diversity and Equal Opportunity 2016		

GRI Standard	Disclosure	Location
405-1	Diversity of governance bodies and employees	46-50, 65
GRI 406: Non-discrimination 2016		
406-1	Incidents of discrimination and corrective actions taken	46-48
GRI 407: Freedom of association and collective bargaining 2016		
GRI 408: Child Labor 2016		
408-1	Operations and suppliers at significant risk for incidents of child labor	46-48, 57
GRI 409: Forced or Compulsory Labor 2016		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	46-48, 57
GRI 413: Local Communities 2016		
413-1	Operations with local community engagement, impact assessments, and development programs	58-61
GRI 414: Supplier Social Assessment 2016		
414-1	New suppliers that were screened using social criteria	57
414-2	Negative social impacts in the supply chain and actions taken	57
GRI 416: Customer Health and Safety 2016		
416-1	Assessment of the health and safety impacts of product and service categories	43-45
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	43-45
GRI 418: Customer Privacy 2016		
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	43-45



Be the **SOLUTION**  
Not the **POLLUTION**

Sustainability Report 2023

**Sunpower Group Ltd.**

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