

# 2023 SUSTAINABILITY REPORT





# About the Report

This report is the ninth sustainability report released by Sungrow Power Supply Co., Ltd., which intends to openly communicate with stakeholders on the Company's sustainability philosophy, the specific actions and performances, and respond to sustainability concerns of all parties in a systematic way.

## Reporting Basis

This report is prepared in accordance with the *Sustainability Reporting Standards (2021 version) released by Global Reporting Initiative (GRI)*. Meanwhile, the *International Financial Reporting Standards S2 on Climate-related Disclosures*, the *Social Responsibility Guidelines for Companies Listed on the Shenzhen Stock Exchange*, and the *CASS Guidelines for Preparing Social Responsibility Report in Chinese Enterprises (5.0)* are used for reference.

## Reporting Period

This is an annual report covering the period from January 1, 2023 to December 31, 2023, with certain contents going beyond the timeframe. The last report was released in April 2023.

## Reporting Scope

This report covers Sungrow and subsidiaries/organizations under its control, and the scope is consistent with that of the Company's Annual Report. The scope of the major disclosed enterprises is listed in the *List of Main Enterprises* at the end of this report.

## Disclosure of Report

This report is disclosed simultaneously with the *Annual Report 2023 of Sungrow Power Supply Co., Ltd. (Sungrow's Annual Report 2023)*. All financial data involved herein are consistent with those disclosed in the *Sungrow's Annual Report 2023*. The financial annual report has been audited by an independent third party. Unless otherwise specified, the currency used in this report is CNY.

## Names and Designations

To facilitate presentation and reading, Sungrow Power Supply Co., Ltd. in this report is referred to as "Sungrow", "the Company" or "we/us" based on the specific context, and subsidiaries/organizations under Sungrow's control are referred to as "Affiliate(s)" in this report. For the full name and abbreviation of the enterprises mentioned in this report, please refer to the *List of Main Enterprises* attached in the end.

## Access to the Report

This report is available in both Simplified Chinese and English. The electronic version is downloadable from the official website of Sungrow ([www.sungrowpower.com](http://www.sungrowpower.com)). In case of any discrepancy between the Simplified Chinese version and the English version, the former shall prevail.

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# Chairman's Statement



**Cao Renxian**

Chairman of Sungrow Power Supply Co., Ltd.

In 2023, the United Nations Climate Change Conference reached an agreement for the first time on the transition away from fossil fuels in energy systems, ushering in a new era of global cooperation to address climate change. As a citizen of the Earth, Sungrow has actively practiced the ESG principles of “Green Mission, Better Life”, continued to step up efforts in areas with professional influence, and strived to fulfill the established corporate goals closely linked to the core areas of sustainability and business growth.

We have seized the opportunities presented by the development of clean technologies, focusing on solar energy, wind energy, energy storage, electric vehicles, and hydrogen energy. Sungrow's global PV inverter shipments ranked No.1 in the world for years and our global shipments of energy storage systems ranked No.1 among Chinese companies. In the principle of innovation-driven development, we invested RMB 2.45 billion in R&D and delivered the world's first 2000V inverter for grid-connected power generation, the world's first 10MWh fully liquid-cooled energy storage system, and the industry's first Stem Cell Grid Tech White Paper. By the end of 2023, our cumulative installed capacity of inverter and converter equipment has exceeded 515GW worldwide, over 300 million tons\* CO<sub>2</sub> emissions can be avoided annually together with our customers. We care about the environmental improvement and have been committed to the harmony between corporate production and nature. Sungrow has pledged to achieve carbon neutrality on the operational level by 2028, carbon neutrality across the supply chain by 2038, and net zero emissions across the supply chain by 2048. Over the past year, we have kept expanding the use of renewable energy. To this end, we have built rooftop PV power stations in the plants, with a cumulative capacity of 13 MW. By virtue of management-based and technology-based energy

conservation, we saved over 1,300MWh of electricity throughout the year and increased the proportion of green electricity use to 55%. We have also disclosed carbon emission information in a rigorous and objective manner. We have integrated green concepts with the product lifecycle management. SG320HX series have earned the EPD certification. Meanwhile, we have followed up the sustainable development of our partners and the industry, while making joint efforts to develop sustainable and low-carbon supply chains.

Sungrow has contributed to achieve a more just, inclusive, and responsible energy transition, so that more stakeholders can benefit from the transition process and jointly create a better life for all. On the one hand, Sungrow has created a more inclusive, innovative, respectful, and transparent organizational atmosphere, built a global team, set an example by following higher standards of responsibility, and worked with partners to safeguard the rights and interests of laborers in the supply chain. On the other hand, Sungrow has provided extensive support for environmental protection, sci-tech education, and community development, with a total donation of RMB 65 million to public welfare. We have also carried out the “Go For Nature” volunteer services, engaging our employees worldwide for over 3,400 hours to create more widespread and sustained value for the entire society.

Nowadays, the green energy represented by solar energy, wind energy, energy storage, and hydrogen energy is gradually replacing the “impossible triangle” of traditional energy as clean, economical, safe, and sustainable energy. Sungrow will continue to uphold the mission of “clean power for all” and work together with all partners sharing a common vision for a sustainable future.

\* Avoided CO<sub>2</sub> emissions are calculated using the global average carbon intensity of electricity generation released by the International Energy Agency (IEA).



# Table of contents

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Chairman's Statement	01		
Table of contents	02		
At a Glance	03		
A Recap of 2023	06		
Strategic Objectives and Progress of Sustainable Development	09		
<b>01</b>	<b>Sustainable Development Management</b>		
Sustainable Development Governance Framework	11		
Sustainability Strategy	12		
Communication with Stakeholders	13		
Material Topic Evaluation	15		
<b>02</b>	<b>Excellent Governance</b>		
Corporate Governance	17		
Business Ethics	20		
Compliance and Risk Management	22		
Information and Privacy Security	23		
R&D and Innovation	25		
Digital Transformation	29		
<b>03</b>	<b>Towards Net Zero</b>		
Sungrow Climate Information Disclosure Report	31		
<b>04</b>	<b>Eco-friendly Development</b>		
Environmental Management	54		
Pollutants and Waste Management	56		
Sustainable Products	59		
Biodiversity	61		
<b>05</b>	<b>Mutually Beneficial Collaboration</b>		
Customer Relationship Management	63		
Product Quality and Safety	65		
Sustainable Supply Chain	70		
<b>06</b>	<b>Diversity and Inclusion</b>		
Employee Rights and Interests	73		
Recruitment	76		
Employee Training and Development	77		
Fair Remuneration and Benefits	81		
Occupational Health and Safety	83		
Public Welfare and Community Engagement	85		
Looking into the Future	87		
List of Main Enterprises	88		
Appendix	89		
Independent Assurance Statement	109		
Readers' Feedback	111		



# At a Glance

## About Us

As a key high-tech enterprise in China, Sungrow Power Supply Co., Ltd. (Stock code: 300274) specializes in R&D, production, sales and services of new energy equipment, such as solar energy, wind energy, energy storage, hydrogen energy, electric vehicles, mainly provides photovoltaic inverters, wind energy converters, energy storage system, floating PV system, new energy automotive driving system, EV charging station, renewable hydrogen production system, smart operation and maintenance, and commits itself to providing first-class life cycle solutions of clean energy.

Since the establishment in 1997, the Company has been concentrating on the field of new energy power generation, adhering to market demand orientation, and taking technological innovation as the propellant for development. The Company has cultivated a professional R&D team with solid R&D experiences and strong capabilities of independent innovation. Sungrow has successively undertaken more than 20 national key science and technology programs, led the drafting of multiple national standards, and is one of the few companies in the industry that have mastered a number of independent core technologies.

Photovoltaic inverters, Sungrow's core products, have been accredited by TÜV, CSA, SGS, and other international authorities, and sold to more than 170 countries and regions in the

world. Sungrow's cumulative installed capacity of Inverter & converter equipment across the world has been above 515GW by the end of December 2023.

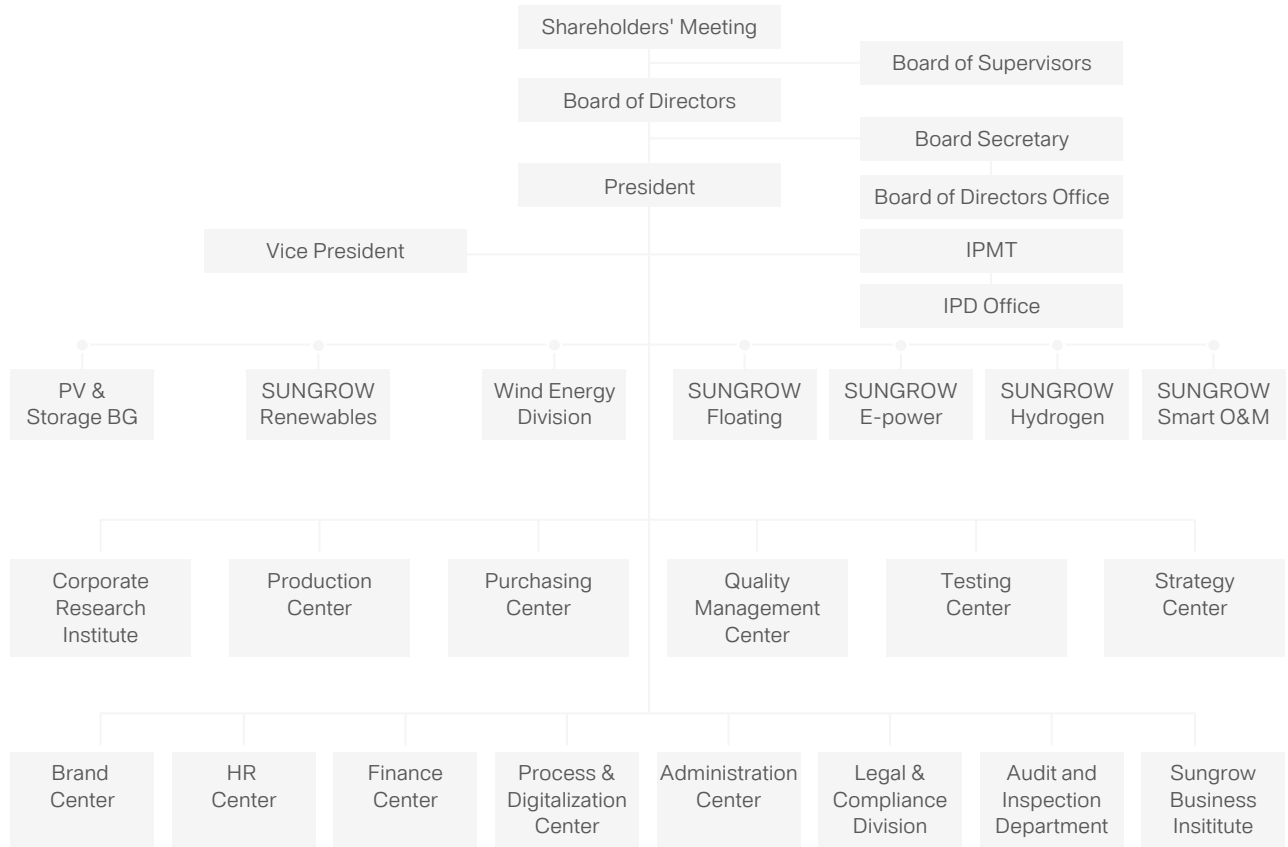
The Company has successively won the awards of China Grand Awards for Industry, National Manufacturing Single Champion Demonstration Enterprise, Top 50 Innovative Chinese Companies, National Intellectual Property Demonstration Enterprise, Global Top 500 New Energy Enterprises, and Best Companies to Work For in Asia. Sungrow is a company with state-level post-doctoral research workstation, a national high-tech industrialization demonstration base, a national enterprise technology center, a national industrial design center, a national green factory, and ranks among the best in the global new energy power generation industry in terms of comprehensive strength.

In the future, Sungrow will adhere to its mission of "Clean power for all", accelerate the development of clean energy power generation system integration based on the new energy equipment business, innovate and expand new business in the field of clean power conversion technology, keep in close contact with the customers, actively participate in global competition, and strive to build itself into a trusted world-class company.





## Organization Structure



Organization Structure

## Corporate Strategy

Focusing on the field of clean power, Sungrow builds a technological leading edge and high potential of the brand through

low-cost innovation and vertical development, achieving rapid and sustainable growth.

## Core Concepts



**Mission**

Clean power for all



**Vision**

To be the global leader of clean energy conversion technology



**Values**

Honest & Reliable,  
Excellent & Open-minded,  
Innovative & Respectful,  
Customer First



## Global Presence

Sungrow continues to advance its globalization strategy, and has set up 20+ subsidiaries overseas. Photovoltaic inverters as the Company's core product are sold to more than 170 countries

around the world. By the end of 2023, the Company has achieved a cumulative installed capacity of over 515 GW of inverter and converter equipment worldwide.



# A Recap of 2023

## Annual Results

 **72.25** CNY billion  
Operating income

 **9.44** CNY billion  
Net profit attributable to shareholders of listed companies

Item	2023	2022	2021
Operating income (CNY)	72,250,674,939.46	40,257,239,155.34	24,136,598,726.55
Net profit attributable to shareholders of the listed Company (CNY)	9,439,561,800.25	3,593,446,514.09	1,583,620,593.57
Net profit attributable to shareholders of the listed Company after deducting non-recurring gains and losses (CNY)	9,215,604,036.77	3,385,833,808.21	1,335,502,585.26
Net cash flow from operating activities (CNY)	6,981,838,977.28	1,210,498,485.89	-1,638,632,122.77
Basic earnings per share (CNY/share)	6.36	2.42	1.08
Diluted earnings per share (CNY / share)	6.36	2.42	1.08
Weighted average ROE	40.96%	20.95%	13.05%

	As at End 2023	As at End 2022	As at End 2021
Total assets (CNY)	82,876,506,727.57	61,627,440,167.96	42,841,222,047.31
Net assets attributable to shareholders of the listed Company (CNY)	27,705,218,364.40	18,667,293,759.12	15,656,015,350.33

Major Accounting Data and Financial Indicators of the Last Three Years





## Annual Honors



China Patent Silver Award

**China National Intellectual  
Property Administration**

A Global Climate Pioneer

**BCG**

Top 500 Valuable Brands in China

**World Brand Lab**

2023 China ESG Golden Awards—  
Environmental (E) Responsibility Award

**Sina Finance**

Included into the “S&P Global Sustain-  
ability Yearbook (China Edition) 2023”

**S&P Global**

Top 50 Sustainable Development  
Industrial Enterprises in China

**Forbes China**

ESG Breakthrough  
Pioneer of the Year

**Phoenix TV**

Top Company 2023  
(Germany)

**Kununu**

Best Employer  
Brand on LinkedIn

**LinkedIn**

Best ESG Practice Employer of  
the Year in China 2023

**Forbes China**

Great Place to Work (Germany,  
Spain, Poland, Middle East, USA)

**Great Place To Work**

Best Companies to Work in Asia

**HR Asia**

Most Caring Company Awards

**HR Asia**

## Annual Events

### NO.1

Continuously ranked No.1 for global PV inverter shipments, and had the world's first 2000V inverter connected to the grid for power generation

### NO.1

Ranked No.1 for global shipments of energy storage systems among Chinese manufacturers for eight consecutive years; released the world's first 10MWh full liquid-cooled energy storage system; launched the industrial and commercial liquid-cooled energy storage system; and published the industry's first *Stem Cell Power Grid Technology White Paper*

### International Projects

Sungrow Renewables has won the bid for overseas projects in such countries as Kazakhstan, the Philippines and Spain to accelerate the expansion of its international presence

### 200 %

Sungrow's residential PV implements the "Installation at Ease" service strategy, with the annual installed capacity increasing by 200%

### 40 %

Annual output of Sungrow's wind power converters has increased by 40%, reaching a new record, and the grid-based converters have passed the industry's first demonstration

### A Round

Sungrow Hydrogen completed the A round of financing and released the flexible hydrogen production system solution

### NO.1

Sungrow FPV led the establishment of IEC and other standards, with its market share topping the world for six consecutive years

### 10,000 +

Sungrow E-Power's hybrid dual-electric control products have been put into mass production, with the single-month delivery amounting to tens of thousands

### 60 %

Sungrow Smart O&M unmanned aerial vehicle intelligent inspection system has got the highest certification in the industry, with the business scale increasing by 60%

### 180 kW

Sungrow Charging 180kW integrated pile was launched and went for mass delivery

### iCarbon

Sungrow iCarbon upgraded a one-stop full-life-cycle zero-carbon solution

### 1.5 million +

iSolarCloud upgraded, reaching 1.5 million + users

### 7,700 +

Accumulatively applied for more than 7,700 patents, and won awards including the Best Employer for Worldwide Talents, Forbes "Best ESG Practice Employer". Sungrow Business School won the Best Human Resource Management "Flag Awards"






### Sungrow Principles

The *Sungrow Principles* has been released, and the Sungrow Tower and the Global Marketing Center have been put into use

The ranking is sourced from institutions such as Zhongguancun Energy Storage Industry Technology Alliance, S&P Global, SERIS, CWEA, etc








## Strategic Objectives and Progress of Sustainable Development

	Sustainable Development Goals	Progress in 2023
<p><b>Excellent Governance</b></p>  	<p>By 2023, a sound sustainable development governance structure shall be established.</p> <p>By 2025, the remuneration of all directors, supervisors and senior management members shall be linked with ESG.</p> <p>We will build a comprehensive risk management system, pass the ISO37301 certification in 2025, and put in place a compliance management system .</p> <p>We will increase the diversity of the backgrounds of the board members.</p> <p>Adhere to international conventions and local laws and regulations, promote employees and partners to fulfill their obligations to the environment and respect human rights.</p>	<p>The Strategy Committee under the Board of Directors was expanded to Strategy and Sustainable Development Committee.</p> <p>The internal system of ESG-related remuneration for all directors, supervisors, and senior executives was implemented step by step.</p> <p>ISO37301 certification work was launched in the key compliance areas of trade control and sanctions, and anti-bribery, which is expected to be completed in 2024.</p> <p>Efforts were made to diversify the backgrounds of board members, improve the competence and comprehensive governance capacity of the board.</p> <p>Released the <i>Compliance Code of Conduct</i>, promote the signing of the <i>Supplier Code of Conduct</i> by suppliers, and continuously promote the compliance construction of the company and its partners.</p>
<p><b>Towards Net Zero</b></p>  	<p>By 2028, achieve 100% renewable electricity use for operation and production at all of our locations.</p> <p>By 2028, carbon neutrality on the operational level shall be achieved (Scope 1 + 2).</p> <p>By 2038, carbon neutrality across the supply chain (Scope 1 + 2 + 3) shall be achieved.</p> <p>By 2048, net-zero across the supply chain shall be achieved.</p> <p>By 2028, all-round deployment of the energy management system shall be completed, and energy productivity shall be increased by at least 35% compared with 2018.</p> <p>Energy consumption per unit of product production in 2025 shall be reduced by at least 10% compared with 2020.</p>	<p>The proportion of green electricity use reached 55% in 2023.</p> <p>The greenhouse gas emissions (scope 1 + scope 2) were lowered to 41,755 tons of CO<sub>2</sub> equivalent in 2023, down by 1,502 tons of CO<sub>2</sub> equivalent compared with 2022.</p> <p>We have continuously promoted the collection of carbon inventory data from suppliers and reduced carbon emissions from supply chains.</p> <p>We have continuously promoted the collection of carbon inventory data from suppliers and reduced carbon emissions from supply chains.</p> <p>The energy productivity in 2023 was 386700 yuan/MWh, an increase of 60.32% compared with 2018.</p> <p>In 2023, the energy consumption per unit of product was 0.0884 kg of standard coal/kW, down by 6.75% compared with 2020.</p>
<p><b>Eco-friendly Development*</b></p> 	<p>By 2025, VOC emissions per unit of production capacity shall be reduced by 30% compared with 2020, and particulate matter emissions per unit of production capacity shall be reduced by 75%.</p> <p>By 2025, ISO14001 / 45001 system coverage shall reach 100%.</p> <p>By 2025, the intensity of water consumption per unit product shall be reduced by 40% compared with 2020.</p> <p>By 2025, industrial waste recycling rate shall rise to 70%.</p>	<p>In 2023, VOC emissions per unit of production capacity dropped by 46.4% and particulate matter emissions per unit of production capacity dropped by 87.1%.</p> <p>The coverage rate of ISO14001 and ISO45001 systems reached 100% and 80% respectively in 2023.</p> <p>The water consumption intensity per unit product in 2023 was 2.34kg/kW, down 37.3% from the 2020 level.</p> <p>The recycling rate in 2023 reached 60.1%.</p>

\* 【Statistical Caliber】 Includes Sungrow and subsidiaries/organizations under its control (including all operations), which is consistent with the coverage of the Company's Annual Report.

## Strategic Objectives and Progress of Sustainable Development

	Sustainable Development Goals	Progress in 2023
<p><b>Mutually Beneficial Collaboration</b></p>  	<p>By 2028, 80% of suppliers shall conduct ESG audit and the ESG audit shall cover 98% of the new suppliers.</p> <p>We urge suppliers to observe business ethics. By 2028, 98% of the suppliers are expected to sign the code of conduct.</p> <p>We push suppliers to undergo ESG performance improvement. By 2028, the proportion of suppliers who have passed the certification of ISO9001, ISO14001 and ISO45001 shall reach 98%, 85% and 70% respectively.</p> <p>By 2028, due diligence shall be conducted on 98% of suppliers.</p> <p>By 2025, the customer satisfaction rate shall reach and be kept at 93%.</p> <p>We will comply with the requirements of hazardous substances regulations, improve the ability to detect and monitor hazardous substances, and eliminate materials containing potentially hazardous substances.</p> <p>Conflict minerals shall not be purchased, and due diligence on conflict minerals shall be conducted.</p> <p>By 2028, complete the organizational carbon inventory for the top 80% of production material suppliers in terms of procurement amount.</p> <p>By 2028, complete the collection of product carbon footprint data for the top 10% of procurement amount materials.</p> <p>Continuously assist customers in reducing negative environmental impacts on the supply chain.</p> <p>Collaborate with the supply chain to increase resource recycling and support the circular economy system.</p>	<p>We actively conducted ESG audits of new suppliers.</p> <p>In 2023, 96.79% of suppliers signed the <i>Supplier Code of Conduct</i>.</p> <p>We actively carried out the ESG standard certification among suppliers, the proportion of suppliers who have passed the certification of ISO9001, ISO14001 and ISO45001 reached 88.87%, 66.17% and 53.32% respectively.</p> <p>We actively conducted supplier due diligence.</p> <p>Customer satisfaction reached 93.9% in 2023.</p> <p>Suppliers were required to sign environmental commitment letters and upload the SRM system.</p> <p>123 suppliers have undergone responsible mineral due diligence, with zero revenue from products containing conflict minerals.</p> <p>Completed organizational carbon inventory for 34 suppliers.</p> <p>Completed the filling and accounting of carbon footprint data for 35 materials.</p> <p>Amended the <i>Environmental Commitment Letter</i> and formulated the <i>Supplementary Agreement to the Environmental Commitment Letter</i> for all suppliers to sign.</p> <p>Actively respond to <i>EU Battery Regulations</i> and plan battery recycling with local recycling agencies in Europe. Comply with WEEE recycling requirements, commissioned recycling institutions to recycle photovoltaic products.</p>
<p><b>Diversity and Inclusion</b></p>   	<p>By 2025, 22% of the employees and 15% of the management shall be women.</p> <p>By 2025, the number of the Company's registered volunteers shall reach 2,500, and the employees' voluntary service time shall reach 12,000 hours.</p> <p>From 2022, five habitat restoration sites shall be built in five years, with a total planting area of about 33.3 hectares.</p> <p>By 2025, the lost-time injury frequency rate per million hours worked shall be reduced to 0.94 and kept at that level.</p> <p>We will maintain the diversity of employees, and continue to create an equal and inclusive working atmosphere, with the locals' employment rate kept at 97% or above.</p> <p>We will see to it that all employees join in the training, and continue to improve the effectiveness of global training and multi-level leadership training.</p>	<p>In 2023, female employees accounted for 18.8% and female managers accounted for 15.7%.</p> <p>In 2023, the company had a total of 1,352 registered volunteers, dedicating 3,442 hours to volunteer services.</p> <p>In 2023, ten artificial caves for wildlife were built and the total planting area of Sungrow Forest Program reached about 13.3 hectares.</p> <p>In 2023, the lost-time injury frequency rate per million hours worked was 0.84.</p> <p>In 2023, the local employment rate reached 98.8%.</p> <p>In 2023, employee training coverage hit 100%.</p>



# 01

## Sustainable Development Management

### Sustainable Development Governance Framework

Sungrow attaches great importance to sustainable development. In 2023, we formulated the Group’s sustainable development governance framework, expanded the Strategic Committee to the Strategy and Sustainable Development Committee,

established the Strategy and Sustainable Development Committee, and updated the *Articles of Association* and the *Working Rules of the Strategy and Sustainable Development Committee of the Board of Directors*.



The Strategy and Sustainable Development Committee is composed of members of the Board of Directors and supervises the Company’s ESG affairs; the Sustainable Development Management Office is composed of senior managers of various business divisions and functional departments related to ESG issues, responsible for leading the sustainable development implementation working group and regularly reporting to the committee on all ESG work of the Company; the sustainable development implementation working group is composed of representatives of all divisions and functional departments related to ESG issues. The Quality Management Center acted as the leading department, and established the ESG Development Department, which is responsible for implementing the Group’s

sustainability strategy, performance management, and agenda improvement. The Strategy Center, the Board of Directors Office, the Brand Center and other departments work together to jointly undertake responsibilities and work towards the objectives related to sustainable development. The company has incorporated ESG-related performance indicators (including supplier ESG audits, carbon management coverage, green electricity ratio, etc.) into the organizational performance indicators of relevant departments, promoted the ESG-related remuneration for management at all levels included the executive layer, implemented ESG management responsibilities, and provided further support for the orderly advancement of the Group’s ESG performance.

## Sustainability Strategy

Following the sustainability philosophy of “Green Mission, Better Life”, the Company has formulated a sustainable development strategy, and continued to focus on areas with professional influence, advancing efforts towards the five strategic goals of

excellent governance, towards net zero, eco-friendly development, mutually beneficial collaboration, and diversity and inclusion.

# Green Mission, Better Life



### Green Ecosystem

Achieving climate targets through green production and operations, building a green and low-carbon supply chain, actively engaging in ecological philanthropy, aiding in the protection of the ecological environment, and promoting the harmonious coexistence between the business and nature.



### Clean Energy

Focusing on the realms of renewable energy, encompassing solar power, wind energy, energy storage, hydrogen technology and electric mobility, conducting responsible operations, supporting long-term sustainable development for customers with innovative products and services, and providing affordable and reliable clean energy to clients worldwide.



### Better Life

Creating a more equal, inclusive, innovative, and respectful work environment, focusing on labor and human rights within the supply chain, actively participating in volunteer initiatives, and striving to give back to society.

### Towards Net Zero

- Addressing Climate Change
- Energy Management



### Eco-Friendly Development

- Pollutants and Waste Management
- Resource Efficiency and Circular Economy
- Biodiversity



### Excellent Governance

- R&D and Innovation
- Corporate Governance
- Business Ethics
- Digitalization



### Mutually Beneficial Collaboration

- Product Quality and Safety
- Customer Relationship Management
- Sustainable Supply Chain



### Diversity and Inclusion

- Employee Rights and Interests
- Employee Training and Development
- Occupational Health and Safety
- Public Welfare and Community Engagement



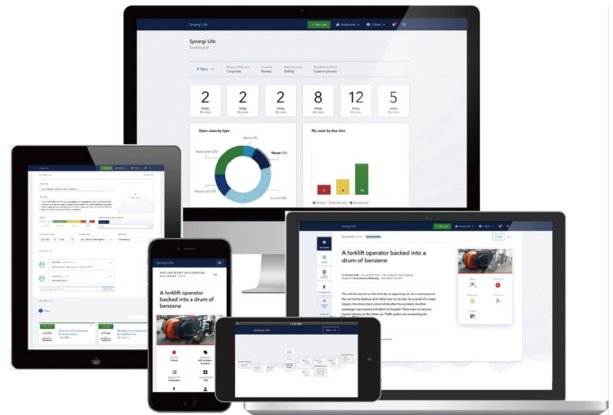


The Company proactively pursues ESG cultural construction and capacity improvement and is committed to creating a sustainability environment engaging all employees. During the reporting period, we added a dedicated column on “Sustainability” to the OA (office automation) system, regularly released news on sustainable development and articles on related popular science, organized 16 courses on sustainability, and hosted 10-plus seminars and symposium on sustainability. In addition,

the session on sustainability has become a regular part of the annual partner conference, providing a platform to exchange views on the management of supply chain sustainability with partners. To raise the awareness of senior management, we invited Boston Consulting Group (BCG) to discuss key issues of sustainable development with Group executives and leaders of core departments.

### Digital Management of ESG

In order to advance the Company’s digitalization of sustainable development and enhance the management efficiency of ESG metrics, Sungrow launched the digital management platform in 2023, with ESG data indicators put into different modules. Point-to-point data filling is realized based on clear demarcation of responsibility scope. At the same time, the platform data analysis bulletin supports information sharing across organizations, tracks the progress towards the goals, analyzes and verifies data. As of the release of the report, the platform manages more than 300 items of ESG data, and updates data monitoring on a rolling basis according to management needs.



### Communication with Stakeholders

Sungrow highly values communication with various stakeholders, including shareholders/investors, customers, employees, suppliers, regulators, NGOs, and members of the community where the Company operates. We have established an effective mechanism for stakeholder identification and participation,

clarified key issues related to environment, social responsibility, and corporate governance, and managed to timely deliver and disclose relevant information, collect feedback and opinions from stakeholders, and accept their supervision.



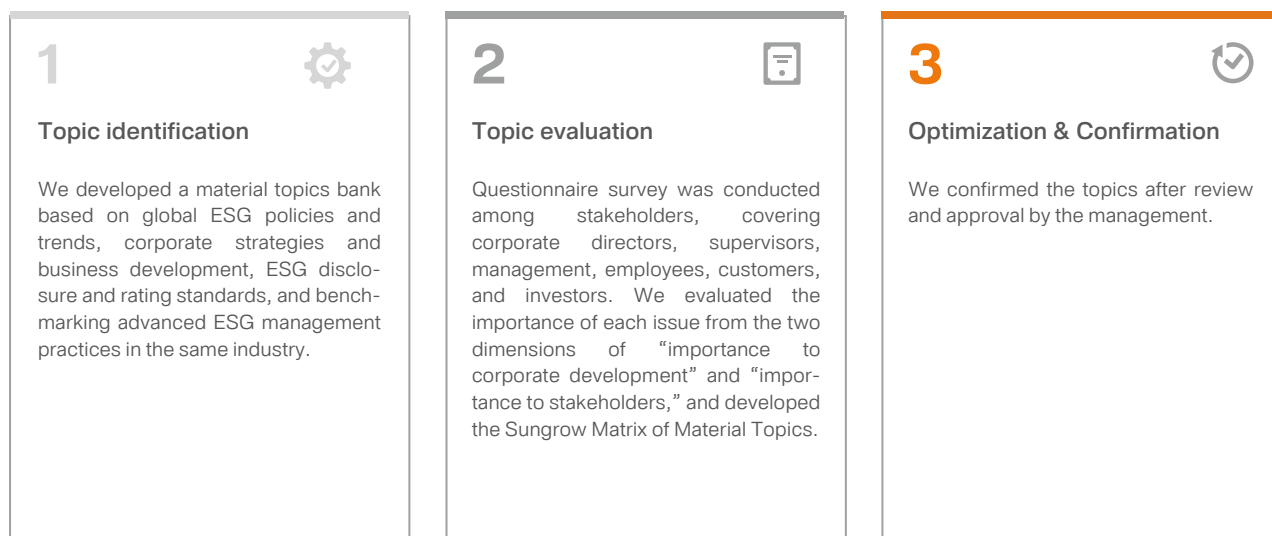
Stakeholders	Key Topics of Concern	Modes of Communication
Shareholders/ Investors	<ol style="list-style-type: none"> <li>1.Constant profitability</li> <li>2.Corporate governance</li> <li>3.Sustainable supply chain</li> <li>4.Responses to climate change</li> <li>5.Employee rights and interests</li> </ol>	<ol style="list-style-type: none"> <li>1.Annual report, half-year report and announcement</li> <li>2.Shareholders meeting</li> <li>3.Performance briefing</li> <li>4. Investors conference</li> <li>5.Feedback platform via phone/-mail/website</li> <li>6. Survey questionnaire</li> </ol>
Customers and Consumers	<ol style="list-style-type: none"> <li>1.Customer health and safety</li> <li>2.Product quality and safety</li> <li>3.Information and privacy security</li> <li>4.Customer relationship management</li> <li>5.Sustainable supply chain</li> </ol>	<ol style="list-style-type: none"> <li>1.Customer meetings</li> <li>2.Customer satisfaction survey</li> <li>3.Global service network</li> <li>4.Exhibitions, forums, conferences and other events</li> <li>5.Customer questionnaire and on-site audit</li> </ol>
Suppliers/ Distributors/ Contractors	<ol style="list-style-type: none"> <li>1.Sustainable supply chain</li> <li>2.Business ethics</li> </ol>	<ol style="list-style-type: none"> <li>1.Procurement activities</li> <li>2.Website(s), social media</li> <li>3.Partner conference</li> <li>4.Training and evaluation</li> <li>5.Field visit and investigation</li> <li>6.Supplier Questionnaire Survey</li> </ol>
Employees	<ol style="list-style-type: none"> <li>1.Prevention of child labor and forced labor</li> <li>2.Diversity and equality of opportunity</li> <li>3.Occupational health and safety</li> <li>4.Employee training and development</li> <li>5.Remuneration and benefits</li> </ol>	<ol style="list-style-type: none"> <li>1.Workers' congress</li> <li>2.New employee orientation training</li> <li>3.Routine communication &amp; training</li> <li>4.Employee satisfaction survey</li> <li>5.WeChat culture group</li> <li>6.Sungrow Speak-up, the Warm Sunshine forum</li> </ol>
Government/ Regulators	<ol style="list-style-type: none"> <li>1.Compliance and risk management</li> <li>2.Supporting local economic development</li> <li>3. Public welfare volunteer activities</li> <li>4.Corporate governance</li> <li>5.Energy management</li> <li>6.Environmental management</li> </ol>	<ol style="list-style-type: none"> <li>1.Routine communication &amp; reporting</li> <li>2.Specific investigations and field meetings</li> <li>3.Meetings/Seminars</li> <li>4.Standard/Policy formulation, feedback of comments</li> <li>5.Website(s), social media</li> </ol>
NGOs/ International Organizations/ Professional Institutions	<ol style="list-style-type: none"> <li>1.Response to international initiatives</li> <li>2.Contribution to the UN Sustainable Development Goals</li> <li>3.Contribution to economy, environment, and society</li> </ol>	<ol style="list-style-type: none"> <li>1.Engagement in RE100, EP100, UNGC and other initiatives</li> <li>2.Forums, conferences, and similar events</li> <li>3.Cooperative programs on sustainability</li> <li>4.Visits and interview</li> </ol>

Stakeholders	Key Topics of Concern	Modes of Communication
Communities	1.Supporting local economic development 2.Rural revitalization 3.Reducing negative impact on communities 4.Public welfare volunteer activities 5.Energy saving and emission reduction	1.Field visit and investigation 2.Feedback of comments 3.Website(s), social media
Media/ Opinion Leaders/ Industry Organizations	1.Driving industrial development 2.Responsible marketing 3.Information disclosure and transparency	1.Forums and seminars 2.Visits and interviews 3.Website(s), social media
Environment	1.Use of energy 2.Waste management 3.Energy saving and emission reduction 4.Hazardous substances 5.Biodiversity	1.Low carbon advertising 2.Public welfare volunteer activities for ecological and environmental protection 3.Environment-related operational data disclosure

## Material Topic Evaluation

Based on the Company’s development strategy, industry characteristics, feedback and expectations of internal and external stakeholders, as well as global sustainability trends, Sungrow followed relevant sustainability/social responsibility

standards, guidelines, and initiatives at home and abroad, and identified a three-stage model (topic identification, topic evaluation, optimization and confirmation) to analyze and evaluate material sustainability topics of the Company.

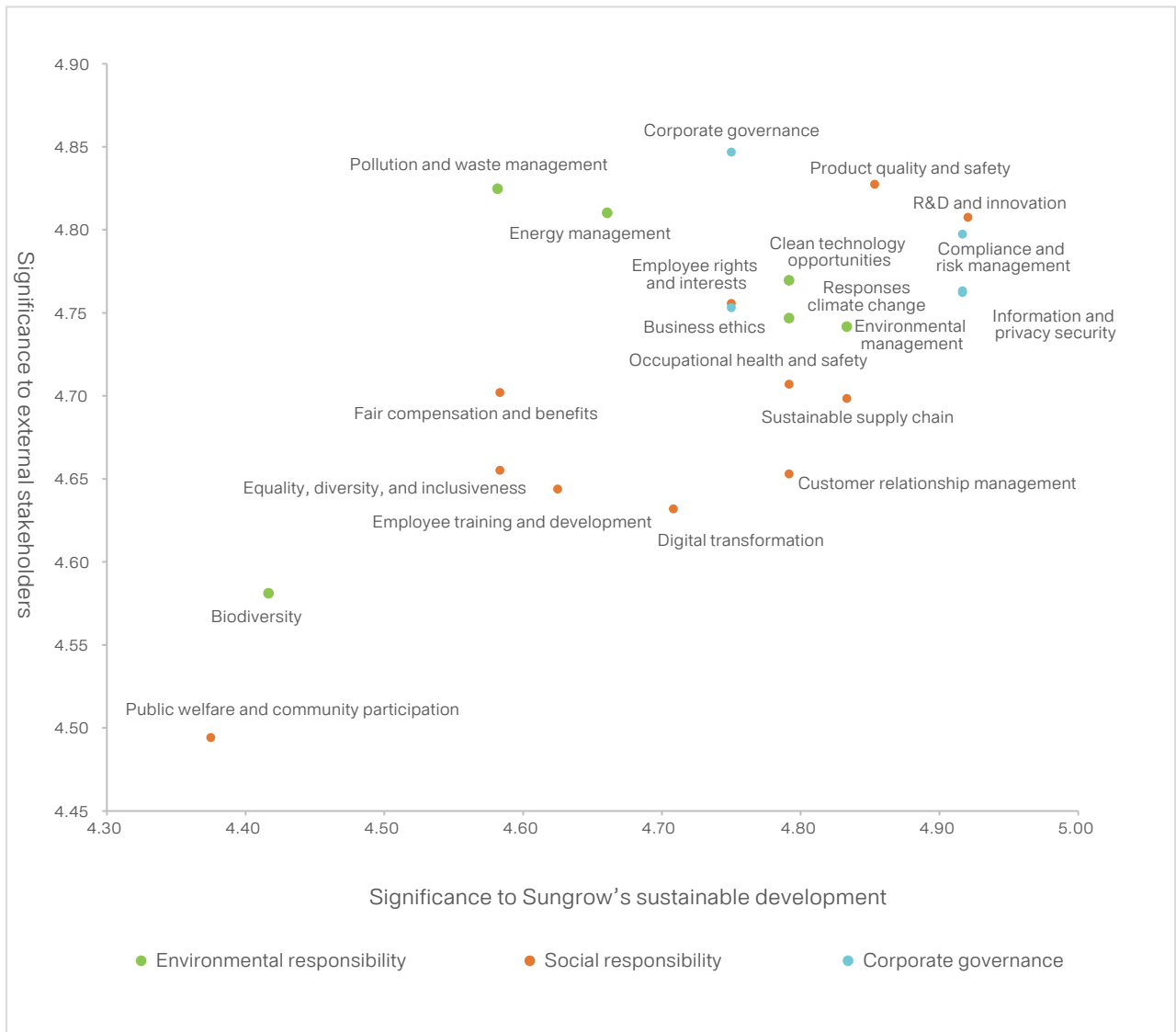




After review and evaluation by the management, the following material topics were identified for disclosure in the sustainability report: product quality and safety, R&D and Innovation, compliance and risk management, responses to climate change,

sustainable products, etc. Compared with the material topics in 2022, R&D and Innovation, product quality and safety, and compliance and risk management are the most prioritized topics.

### Sungrow Material Issue Matrix

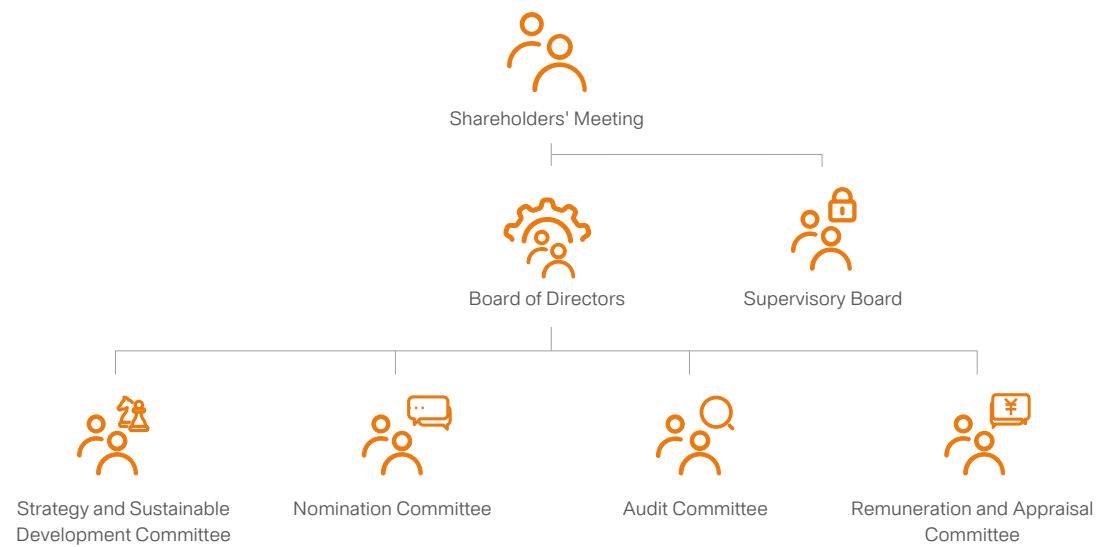


# 02

## Excellent Governance

### Corporate Governance

#### Governance Framework



According to relevant laws, regulations, and normative documents, including the *Company Law of the People's Republic of China*, the *Securities Law of the People's Republic of China*, the *Rules Governing the Listing of GEM Stocks at the Shenzhen Stock Exchange*, and the *Guidelines No.2 of Standard Operation for Companies Listed on the GEM of the Shenzhen Stock Exchange*, Sungrow has formulated the *Articles of Association*, *Information Disclosure Management System*, and other policies; established a corporate governance structure consisting of the Shareholders Meeting, the Board of Directors, and the Board of Supervisors, which contributes to a governance system that is scientific and standardized, with clearly specified rights and responsibilities, featuring mutual restriction and balance as well as efficient operation, so that the Company's governance transparency and effectiveness are constantly improved.

The Company highly values the effectiveness and operability of normative governance documents. In the reporting period, subject to the relevant laws, regulations, and regulatory rules, and in combination with the Company's actual situation, the *Articles of Association* and other policies were revised and updated, which further improved the level of corporate governance.

### Shareholders Meeting

The Shareholders Meeting is the highest authority of the Company. The Company convenes and holds the Shareholders Meeting in strict accordance with the *Rules for the Shareholders Meeting of Listed Companies*, the *Articles of Association*, and the *Rules of Procedure for the Shareholders Meeting*, making sure shareholders legally exercise their rights and interests, and all shareholders are treated equally. The Company also provides convenience for shareholders to participate in the Shareholders Meeting and exercise their rights. In 2023 the Company convened the Shareholders Meeting twice.

### Board of Directors

The Board of Directors earnestly implemented the resolutions adopted by the Shareholders Meeting and diligently performed its duties and obligations, to ensure the sustained, sound, and stable development of the Company, promote the standardized operation of the Company, and safeguard the legitimate rights and interests of the Company, the public and the shareholders. The board has 8 directors, including 3 independent directors. The Board of Directors consists of several special committees, such as the Strategy and Sustainable Development Committee, the Nomination Committee, the Audit Committee, and the Remuneration and Appraisal Committee. The committees have

clearly defined roles and responsibilities, operate independently, effectively balance and coordinate, promoting the Company's production and operation to progress in an efficient, scientific, and compliant manner. In 2023 the Company convened 8 board meetings.

### Board of Supervisors

The Board of Supervisors is the supervisory body of the Company, which supervises the legitimacy and compliance of major transactions, related party transactions, financial status, as well as the performance of duties by directors and senior management. The Board of Supervisors consists of 3 supervisors, including 2 employee representatives. In 2023 the Company held 7 supervisory board meetings.

For detailed information on corporate governance, please refer to the *2023 Sungrow's Annual Report* available at the Company's official website (<https://cn.sungrowpower.com/govern.html>). The Shareholders Meeting, the Board of Directors, the Board of Supervisors, and the Special Committee of the Board of Directors are responsible for reviewing major issues related to the Company's development.

### Remuneration and Appraisal

The remuneration of directors and supervisors is determined by the Shareholders Meeting, and the remuneration of executives is determined by the Board of Directors. Directors, supervisors and executives who hold an office in the Company receive remuneration according to their specific positions. The remuneration of directors, supervisors and executives is determined and paid in accordance with the *Working Instruction of the Remuneration and Appraisal Committee*, based on their job performance, work competency, job grade, and etc. For the remuneration package and shareholdings of each director, supervisor and executive, please refer to the *2023 Sungrow's Annual Report*.

The Remuneration and Appraisal Committee is responsible for the work relating to the remuneration and assessment of the directors of board and management. The Committee formulates or amends stock incentive plans and employee stock ownership plans, so as to encourage them to enjoy benefits and exercise rights. The directors of board and executives should submit proposals to the Board about the stock ownership plans for the subsidiaries to be spun off. The remuneration plan for the directors of board proposed by the Remuneration and Appraisal Committee must be submitted to the Board for approval before being submitted to the shareholders' meeting for deliberation and approval for implementation. Shareholders have the right to vote on remuneration-related matters once a year. The shareholders entitled to the right of speech on remuneration include all directors on the board, including the CEO. The remuneration plan for the executives should be approved by the Board, explained to the shareholders' meeting, and fully disclosed.



## Diversity and Independence of the Board of Directors

Taking diversity of the Board of Directors into consideration, the Company has continued to enrich the backgrounds of directors in order to improve the competence and the comprehensive governance level of the Board of Directors. Currently, the board consists of 8 directors who bring along profound professional

experiences in the industry or extensive exposure in management. Among them, 3 independent directors are experts in legal affairs, finance, and industry respectively, complementary to those with an enterprise background; 1 director is female, accounting for 12.5% of all the board members.

Special Committees	Committee Responsibilities	Membership		
		Name	Position	Experience/ Skills
Strategy and Sustainable Development Committee	Mainly responsible for feasibility studies and suggestions on the Company's long-term development strategic planning, major strategic investments, operational risk management, and ESG (environmental, social and governance) strategic goals and policies, and reporting work to and being accountable to the Board of Directors.	Cao Renxian	Chairman, President	Industry expert
		Gu Yilei	Vice Chairman, Senior Vice President, President of PV & Storage BG	Industry expert
		Zhang Xucheng	Director, Chairman and President of Sungrow Renewables	Industry expert
Audit Committee	Mainly responsible for communication, supervision and verification of internal and external audit of the Company.	Gu Guang	Independent Director	Financial expert
	All the members are independent directors including financial, legal and industry experts who put forward suggestions on the risk management and control regarding the Company's financial, legal and industry development.	Li Mingfa	Independent Director	Legal expert
		Zhang Lei	Independent Director	Industry expert
Nomination Committee	Mainly responsible for making suggestions on the candidates, conditions, standards and procedures for the proposed directors and managers of the Company.	Gu Guang	Independent Director	Financial expert
		Li Mingfa	Independent Director	Legal expert
	Two-thirds of the members are independent directors. The chairperson is an independent director.	Cao Renxian	Chairman, President	Industry expert
Remuneration and Appraisal Committee	Mainly responsible for formulating the evaluation standards for directors and managers of the Company and conducting the evaluation; responsible for formulating and reviewing the remuneration policies and plans for directors and managers of the Company; responsible to the Board of Directors.	Zhang Lei	Independent Director	Industry expert
		Li Mingfa	Independent Director	Legal expert
	Two-thirds of the members are independent directors. The chairperson is an independent director.	Cao Renxian	Chairman, President	Industry expert

## Investor Relations Management

### Information Disclosure

The Company performed the obligation of information disclosure management in strict accordance with the *Administrative Measures for Information Disclosure of Listed Companies*, and completed the disclosure of 210 materials in 2023, including 4 regular reports, 130 provisional announcements and 76 other materials. All announcements are true, accurate, timely, and

complete. Fair information disclosure is done with zero correction. The information disclosure work has been highly recognized by the regulatory authorities, and the Company has once again gained the highest evaluation level A (Excellent) in evaluation conducted by the Shenzhen Stock Exchange.

### Investors' Rights

The Company has formulated the *Regulations on Investor Relations Management* and assigned dedicated positions and personnel to maintain open communication with investors, securities analysts and other parties, allowing them to fully understand the Company's strategy, operation and development dynamics. The Company serves investors in a number of ways, such as online performance briefing, investors conference, investor hotline, email, and corporate website, and discloses information about the Company to the capital market and investors in a timely, proactive, and detailed manner. The Company adequately secures the rights and interests of small and medium shareholders. The Shareholders Meeting has adopted a cumulative voting mechanism. Through a combination of on-site voting and online voting, all shareholders can get involved and exercise their rights. In 2023, the Company organized 6 field investigations with other institutions, holding online performance briefing for the *2022 Sungrow's Annual*

*Report* and the *2023 Sungrow's Half-Year Report*. By timely answering questions raised by investors through the Shenzhen Stock Exchange's investor relations interaction platform, we maintained online and offline communication on corporate governance, development strategy, business status, sustainability, production and operation, and other issues concerning investors, making sure that the Company's business development information is fairly accessible to all investors.

At the same time, the Company strictly practices the *Insider Registration Management Regulations of Listed Companies* to standardize the reporting, transmission and confidentiality of major internal information, thereby securing insider information, allowing shareholders to get updated of the Company's operating dynamics, financial status and progress of major issues in a timely manner, and effectively safeguarding the legitimate rights and interests of all investors.

## Business Ethics

### Management of Business Ethics

The Company maintains a "zero tolerance" attitude towards corruption, and sets up a group-level department, the Audit and Inspection Department, to independently carry out audit and supervision under the guidance of the Chairman of the Board of Directors.

The anti-corruption work of the Audit and Inspection Department is reported to the Audit Committee of the Board of Directors quarterly to ensure that the compliant, orderly and efficient business operation. The Company actively builds an anti-corruption prevention system, in light of the *Criminal Law of the People's Republic of China*, formulated the *Code of Conduct for Sungrow Executives and Managers*, the *Regulations on Internal Audit and Supervision*, the *Regulations on Integrity and Self-Discipline*, the *Anti-corruption Statement*, the *Regulations on Whistleblowing and Appealing*, the *Code of Conduct and Self-discipline*

*Commitment Letter, etc.*, to ensure that anti-corruption work has rules to follow. In 2023, the Company formulated the *Regulations on the Management of Conflicts of Interest between Employees and the Company*, created the Filing Procedure for Reporting Conflicts of Interest; pushed overseas regions to gradually draft and implement the *letter of commitment for integrity and compliance*; and improved the *Whistle-blowing Management Regulations* to strengthen the reward and protection for whistleblowers. In 2023, the company upgraded the *Employee's Commitment to Integrity and Self-discipline* to the *Code of Conduct and Self-discipline Commitment Letter* that will be signed by all employees. 100% of the suppliers and distributors signed Integrity Agreement and 96.79% of suppliers signed the *Supplier Code of Conduct*.

During the reporting period, a total of 13 typical cases of employees violating the *Regulations on Integrity and Self-discipline* were investigated, and 13 employees faced the termination of their labor contracts according to law due to serious violations of the Company's integrity system. 4 of them were transferred to the judicial authorities for legal punishment due to suspected crimes, and 9 with direct management responsibilities were held accountable. In addition, a total of 8 suppliers were punished for corruption-related incidents. All whistleblowing cases were

handled, which avoided an annual loss of CNY4.509 million.

The Company promptly notified all employees or suppliers of how the corruption cases had been handled. After corruption cases were spotted, the Audit and Inspection Department and the related business department looked into the conditions and methods of corruption, and made clear of the blind spots and deficiencies in management. Then the existing management systems, processes and methods were improved to prevent similar incidents from happening again.

## Business Ethics Training

The Company carries out anti-corruption education among employees and partners through training and publicity; and promotes the corporate culture of integrity and self-discipline. In 2023, the Company provided all employees (including part-time employees and contractors) with education on anti-corruption and integrity. We held an examination on the Company's internal ethics-related systems, including the *Regulations on Employee Integrity and Self-Discipline*, the *Regulations on Whistle-blowing and Appealing*, the *Internal Reporting and Confidentiality System of Key Information*, the *Corporate Compliance Management Measures*, and *Code of Conduct*, engaging 100% of employees.

In addition, 16 training sessions themed on anti-corruption and 8 offline training sessions on integrity for personnel in sections were held. All new employees are required to attend the integrity training, delivering a participation rate of 100%. Furthermore, we have run the Company's official WeChat account 'Integrity at Sungrow', created an account for integrity and compliance services of the OA system, posted integrity reminders during holidays and five articles on integrity warnings, and sent integrity letters regularly to our partners to reinforce self-discipline.

## Whistle-blowing Mechanism

The Company has formulated the *Regulations on Whistle-blowing and Appealing*, and established an efficient, open and transparent whistle-blowing and appealing channel. Whistleblowers can report and complain about matters in violation of business ethics 24 hours a day through the telephone hotline, mobile phone, WeChat, and e-mail. The Audit and Inspection Department handles all the cases that violate business ethics and harm the interests of the Company, employees and partners in accor-

dance with the *Regulations on Internal Audit and Supervision*, and arranges the responsible department to investigate and deal with them. The Audit and Inspection Department shall report its work to the Audit Committee on a quarterly basis. If the whistle-blower has objections to the result, he/she has the right to apply to the competent leader of the investigation department for a ruling to ensure that the result is fair and impartial.

## Sungrow's channels of whistle-blowing and appealing



### Sungrow Anti-corruption Hotline

0551-65326873



### E-mail

complain@sungrowpower.com



### Mobile phone

18655168110 (same as the Wechat account)



The Company rewards and protects whistleblowers. Those who provide valid clues/evidence and assist in verifying the case will be rewarded an appropriate proportion of the verified amount. Whistleblower’s information is strictly kept confidential, so as to safeguard personal safety and legitimate rights and interests of whistleblowers, insiders, and their close relatives. Discrimination or retaliation against them is strictly prohibited. Any violation will be punished in accordance with the *Regulations on Employee Reward and Punishment*. In case a crime is committed, it will be transferred to the judicial authorities.

The Company protects the legitimate rights and interests of those being accused. In accordance with the *Regulations on*

*Whistle-blowing and Appealing*, the Company prohibits malicious complaints and false accusations, and promptly clarifies and explains to the organization of the accused. If necessary, remedies such as eliminating effects, restoring reputation, and making economic compensation will be taken to protect the legitimate rights and interests of the accused.

During the reporting period, a total of 19 cases were submitted through the whistleblowing mechanism; 19 cases were handled (or reviewed) during the reporting period, with a handling rate of 100%. The Audit and Inspection Department was responsible for following up the complaints to the end.

Complaint and appeal handling process

Complaint acceptance	Responsible department: Audit and Inspection Department Processing cycle: 2 working days
Complaint handling	Responsible department: Audit and Inspection Department Processing cycle: 1 working day
Case investigation	Responsible department: Investigation Department (Audit and Inspection Department/Finance Center/Legal and Compliance Department/Human Resources Center/Quality Control Center/Process and Digitization Center) Processing cycle: up to 6 months
Results feedback	Responsible department: Centralized investigation department/responsible leader Processing cycle: 3 or 5 working days

## Business Ethics Audit

The Audit and Inspection Department conducted special audits on the functional centers, divisions and subordinate units of the Company in accordance with the *Regulations on Internal Audit Supervision*, and carried out nearly 10 audit projects every quarter, including the asset and resource audit, business and management audit, investment audit, financial audit, all involving

business ethics. In 2023, 33 audit projects were completed and 30 projects were rectified. The Audit and Inspection Department continuously improved the Company’s risk management and internal control through comprehensive internal control audit, special audit, and investigation into violations of business ethics.

## Compliance and Risk Management

Sungrow continued to improve the compliance management system, covering the organizational system, institutional system, executive system, and security system. The Company completed the organizational upgrading. The Legal & Compliance Division, as the executive department of compliance management, regularly reported compliance-related issues to the Vice President of the Company.

In terms of organizational system, the Company has set up three lines of defense for compliance management. On the first line of

defense, the functional and business departments bear principal responsibilities for the compliance of their own departments and business. On the second line of defense, the Legal & Compliance Division is responsible for organizing and leading compliance management work, while supervising and urging the functional and business departments to fulfill their compliance responsibilities. On the third line of defense, the Audit and Inspection Department supervises, within the scope of its authority, the functional departments and the Legal Affairs

and Compliance Department to fulfill their compliance management responsibilities, handles compliance-related whistleblowing, and organizes or participates in the investigations into violations.

In terms of institutional system, the *Compliance Management Measures* and the *Code of Conduct* were issued in 2023, detailing the Company's compliance stance in the four aspects of continuously improving corporate governance, protecting employees' rights and interests in accordance with the law, conducting commercial activities in good faith, and proactively performing social responsibilities, establishing standards for corporate and employees' conducts. Apart from the top-level compliance system, we combed through the systems of each functional department, with a view to further improving the overall system.

With regard to improving the executive system on compliance management, the Company has initiated the ISO37301 certification work in key compliance areas such as trade control and sanctions and anti-bribery, which is expected to be completed in 2024. We have improved the risk management system step by step. The Legal & Compliance Division interviewed various functional departments based on the key compliance areas specified in the *Code of Conduct*, and established a "compliance risk database." The risk database could be used to sort out related laws, regulations, departmental rules, and other sources of compliance obligations, thereby identifying compliance risks in 22 special compliance areas, including anti-bribery, anti-cor-

ruption, corporate governance, fiscal and tax compliance, anti-money laundering, investment and financing compliance, environmental protection, product quality and safety, and production safety. Afterwards, the database could determine the risk level and identify primary responsible department to develop countermeasures. In the future, a PDCA circular risk management system will be gradually formed for risk identification, risk assessment, risk response, and risk control, laying a foundation for risk classification, hierarchical management and authorization management. Additionally, the Legal & Compliance Division carried out the overseas cross-border data compliance project in 2023, identified the cross-border data compliance risk of relevant data systems, and built the Company's data compliance capacity and system efficiently.

In terms of the compliance assurance system, all employees took the exams on internal systems related to compliance and risk management, such as the *Corporate Compliance Management Measures* and the *Code of Conduct*. The Legal & Compliance Division invited experts from renowned law firms to conduct special training for employees engaged in the work related to the risk control and compliance system, covering such themes as the Practice of Corporate Compliance Management System, the Risk Prevention of Control/Sanctions under Complex International Circumstances, and the Legal Risks from Customs Import and Export Control Legal Risks and Compliance Responses.

## Information and Privacy Security

### Information and Privacy Security Management

The Company established the Digital Transformation Management Committee, responsible for the decision-making and promotion of digital strategy, information security and privacy security strategic guidelines, with the Group's senior executives serving as members of the Committee and the Chairman as the general leader. The Committee has the Digitalization Promotion Office to coordinate all business teams to promote the Group's digitalization, information security and privacy protection management. In 2023, the Company passed the dual certification of ISO / IEC 27001: 2013 information security management system and ISO / IEC 27701: 2019 privacy information management system. There were no major security attacks or information breaches during the reporting period.

Based on a review of the *Cybersecurity Law of the People's Republic of China*, *Data Security Law of the People's Republic of China*, *Personal Information Protection Law of the People's Republic of China*, *European General Data Protection Regulation*, and other related laws and regulations, in combination with the latest domestic and foreign guidelines on data export, as well as the compliance risk evaluation within the Company and customer surveys outside the Company, the Company has formulated more than 30 regulations on information security and personal privacy protection, including the *Information Security and Privacy Security Management Manual*, the *Information Security and Privacy Security Management Regulation*, and the *Employee Information Security and Privacy Security Management System*,

*Business Continuity Management System*, and *Business Continuity Plan*, which provide security guarantee for the rapid development of the Company's business, continue to empower the information security and privacy security capabilities of all business departments and subordinate companies, ensuring the information security and privacy protection of employees and customers.

In accordance with the *Law for Countering Unfair Competition*, the Company formulated its own confidentiality management system documents, including the *Management Measures for Personnel with Access to Classified Information*, the *Management Measures for Classified Carriers and Products*, and the *Management Measures for Investigations into the Time of Information Leak*, in a bid to ensure the protection of the Company's commercial secrets. Employees are required to sign a *confidentiality agreement* when they join the Company. The employees with access to sensitive data shall sign a special confidentiality agreement which specifies the confidentiality obligations. In addition, the Company has appointed a fixed number of confidentiality supervisors to each business department, center, and branch company. We also provided confidentiality training sessions and empowerment to the R&D, Supply Chain, and other departments with access to classified information and the confidentiality supervisors, so as to enhance employees' confidentiality awareness and business capabilities to prevent information leaks.

The Company attaches great importance to corporate and user information security. In terms of cybersecurity, we carry out security protection for the Company's key networks and strengthen network-wide monitoring management. When processing users' personal data, the Company's products comply with the requirements of the privacy protection laws of

the corresponding countries, including the personal data processing principles stipulated in the *Personal Information Protection Law of the People's Republic of China* and *European General Data Protection Regulation*, and protect the rights of users as data subjects, to safeguard the users' personal data in the process of using the product.

## A Case

### The iEnergyCharge Series of Products

The iEnergyCharge series of products have obtained the GDPR-based personal data protection verification certificate issued by SGS, available for applications on IOS and Google Play, and the Sungrow Charge Management System. They have passed China National Level II Security Certification, met the requirements of the OCPP Security Whitepaper, and supported access standards of the Acts 303645 and 1467.



## Information and Privacy Security Risk Management

Sungrow has formulated the *Regulations on Threat and Vulnerability Management*, the *Implementation Guide for Information Security Risk Assessment*, the *Overall Business Continuity Emergency Plan* and the *Management System for Information Security and Privacy Protection Incidents*, evaluating compliance risks based on risk matrix analysis. Building on a comprehensive and accurate understanding of the Company's information security status, we sorted out and identified important information assets and the main threats and impacts faced by corresponding assets, and then determined the risk level to take effective measures accordingly, in a bid to eliminate, transfer, or reduce risks within a controllable range. In order to improve all employees' information security awareness and their practical ability to cope with cybersecurity emergencies, the Company

has put in place the security incident reporting and response procedures, and carries out attack and defense drills every year, further testing the Company's ability in safeguarding the various information assets.

At the same time, the Company conducts internal audit on information security and privacy protection every year, and entrusts a third-party independent assessment agency to audit the information system and information security system of the Group and complete the grading regarding the transportation management system (TMS), real-time communication platform, enterprise resource planning system (ECC) and so on. Through evaluating the security of the information system, security risks and loopholes are found, and relevant repair measures are taken to ensure the information system security.

## Training in Information Security and Privacy Protection

Sungrow attaches importance to training in information security and privacy protection, and incorporates the information security and confidentiality training into the new staff pre-job training, covering all employees, ensuring that relevant provisions are known by employees. We conduct information security and privacy protection training every quarter to help trainees know about domestic and foreign information security compliance requirements and trends, understand the impact of information security incidents on enterprises, and interpret the contents of the information security and privacy protection management

system, to enhance the information security awareness of employees. The Company has set an internal information security service account, with the focus put on cybersecurity, data security, personal privacy protection, cross-border data and other aspects, to provide employees with practical and valuable information, dynamics and trends in the field of information security. We carried out offline information security activities themed on "making security a boat in the sea of information" and increase the information security awareness and participation of all employees through online quizzes and offline sweepstakes.

## R&D and Innovation

### R&D System

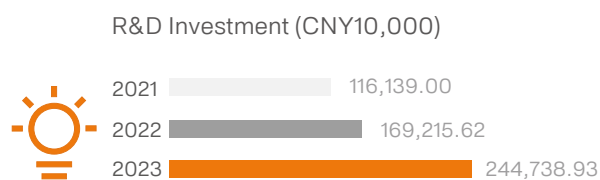
With a focus on enhancing independent innovation capabilities, the Company has set up six R&D centers in Hefei, Shanghai, Nanjing, Shenzhen as well as in Germany and the Netherlands. The Company constantly optimizes the R&D organizational structure, R&D management mechanism and process, innovates throughout the entire process from product R&D, engineering design and intelligent manufacturing to digitalized management. With core technologies as the propeller, Sungrow's R&D team continually upgrades existing product lines, maintains product iterations, and provides leading technological support for the Company to deliver globally competitive products and services. Along the entire process of new product development, from project creation to project closure, production and sales, transportation and maintenance to lifecycle management, Sungrow adheres to the principles of continuous technological innovation, continuous cost reduction in product R&D and operation, continuous improvement in utilizing energy and resources, and environmental protection, to actively assume social responsibilities in design and development, and support the green development of the Company.

The Company's R&D structure consists of the Central Research Institute and the R&D task-forces of divisions. The Central Research Institute explores cutting-edge technologies, makes high-value intellectual property plans in advance, and addresses critical technical challenges; provides an efficient service platform and innovation management mechanism for the Company's product and technology development; fosters R&D and management professionals to build up core technological competitiveness. At the same time, each division has set up an independent platform R&D center and a R&D task-force. The platform R&D center is responsible for developing general and cutting-edge technologies specific to the division while the R&D

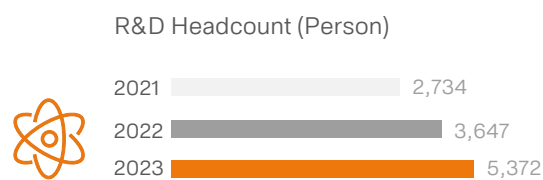
task-force focuses on R&D close to the business. The taskforce also derives technical demands from business demands, and forwards them to the platform R&D center. After evaluating the demands, the platform R&D center may decide to take the challenge themselves or escalate the demands to the Central Research Institute. Technologies required by key projects of each division will be broken into smaller items, and the completion rate of key projects will be included in the performance review of the division head and relevant R&D personnel.

The Company takes the IPD (Integrated Product Development) system as the management process carrier which leverages the APQP (Advanced Product Quality Planning) and CMMI (Capability Maturity Model Integration) in response to specific business demands. The mechanism is expanded based on the application software currently in use and the embedded software development project management, aiming at bridging the gap in the original IPD process that is over-focused on hardware development, and provide rational grounds for software development projects. While IPD+APQP+CMMI approach has been adopted as the overall development model, different combinations may be applied to different R&D projects to ensure quality of the TR1-TR6 process. In addition, the Company has established the IPMT (Integrated Portfolio Management Team) composed of heads in R&D, production, finance, human resources and strategy to define overall strategic goals and lead the Company's R&D efforts. The Company has set up the ITMT (Integrated Technology Management Team) to formulate the Company's technology development strategy for the next 3 to 5 years as well as directions of technology breakthrough and technology roadmap plan for the next 2 to 3 years, providing technical guidance and decision-making to R&D task-forces of divisions.

### R&D Investment



The Company further consolidates technical strength, increases R&D investment, and develops the high-end technological human resources pool to maintain the long-term innovation capability. In 2023, the Company invested CNY 2.447 billion in R&D, with an increase of 44.63% over the previous year. By the



end of 2023, the technological R&D headcount reached 5,372, accounting for 40% of total employees. The number of those with a doctor's degree or above was 89, increasing by 39.1% over the previous year.



## A Case

### Incentives of the Central Research Institute

In order to further strengthen the Company's R&D and innovation capability, enhance the R&D efficiency, initiative and creativity of R&D personnel, and advance the R&D in an orderly manner, the Central Research Institute held Sunflower Program for new hires, new staff training, tutor bi-weekly guidance, oral defense coaching for would-be full employees, etc., so that employees can continue to improve themselves in learning. At the same time, micro-innovation and exemplary deeds are encouraged. A total of 44 outstanding employees and 42 excellent groups were rewarded in 2023, urging everyone to make progress.



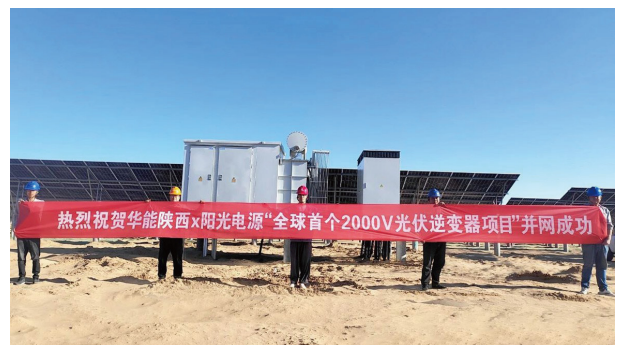
## Product Innovation

Under the support of the R&D system and intensive R&D investment, Sungrow comprehensively promotes technological

transformation and product innovation, to advance the high-quality development of the industry.

### The world's first 2000V inverter connected to the grid for power generation

The "Mengjiawan Photovoltaic Project" has put into operation the latest DC 2000V high-voltage inverter developed by Sungrow. This is the world's first grid-connected demonstration of a 2000V system. Sungrow effectively reduced the stress of key components through innovative intelligent hierarchical shutdown technology and adaptive voltage and power control algorithm. In addition, Sungrow adopted the technical solution of "high-voltage towing power cycling test" to carry out all-round performance tests, including the verification of grid access adaptability, so as to ensure stable and reliable operation of equipment under high voltage. Thanks to the significant increase in system voltage, the project further reduced system losses and lowered costs for infrastructure construction, equipment transportation and maintenance. Meanwhile, due to the larger number of components in series, the consumption of DC cables and bracket steel was reduced.



### White Paper on Stem Cell Grid Technology

The stem cell grid technology has broken through the technical bottleneck of the industry. We have developed a number of leading technologies such as enhanced continuous high and low penetration, flexible inertia support, GW-level black start, etc., leading the technological development of the industry, so that the power grid can operate stably and the new power system is more stable and flexible. It is comparable to the case that the repair, purification, hematopoiesis of stem cells are very important to the human body.



### PowerTitan 2.0 Liquid-Cooled Energy Storage System

Sungrow launched the world’s first 10MWh all-liquid-cooled energy storage system PowerTitan 2.0 which features an integrated design. As much as 29% of the floor space is saved for the 10MWh system. The PCS design is adopted so that there is no barrel effect between clusters, and each cluster of batteries can be fully discharged. The system’s full life cycle discharge capacity is increased by 8% +; through the liquid-cooled Pack +, liquid-cooled PCS “full liquid cooling” heat dissipation, and the AI bionic heat balance technology, the auxiliary power consumption is reduced by 45%; the AC-DC integrated design keeps the DC cable in the cabinet, and the standard short cable is placed in the energy storage cabinet to avoid various safety hazards. The independent intelligent Block management design is innovatively adopted to ensure that the system charge and discharge capacity is maximized, the system response time is reduced by 25%, and the equipment maintenance workload is reduced by 75%.



### Yangtze River Power Green Power & Green Hydrogen Demonstration Project

Sungrow Hydrogen is committed to providing integrated solutions for PWM hydrogen production power, alkaline / PEM electrolytic water hydrogen production system and smart hydrogen energy management system. In 2023, Sungrow Hydrogen provided 200Nm<sup>3</sup>/h PEM flexible hydrogen production system solutions for the Yangtze River Power Green Power & Green Hydrogen Demonstration Project, successfully ensuring the commissioning of the project with leading technical solutions and excellent equipment, providing 99.999% highly pure hydrogen kinetic energy for the “Three Gorges Hydrogen Ship 1” and the tourist buses in the dam area. The project holds great demonstration significance for the transformation of “zero pollution and zero emission” of ships in China’s inland waters.



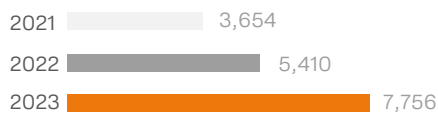
## Intellectual Property Management

Insisting on “Defending the Sungrow Industry with Intellectual Property”, Sungrow provides comprehensive intellectual property management and protection services for itself. The Company has established the Intellectual Property Center, the Decision-making Committee, and the Patent Review Committee; formulated a complete set of strategic plans and systems on intellectual property, including the *Regulations on the Patent Application*, the *Regulations on Patent-related Work* and the *Regulations on Patent Rewarding*, to promote intellectual property protection. In 2023, the *Regulations on the Management of Technical Secrets*, the *European Writing Standards*, the *American Writing Standards* and the *Australian Writing Standards* were

formulated to further improve the intellectual property management and patent application life cycle management.

In 2023, 2,673 new patent applications were filed, with a patent application growth rate of 52.2%; by the end of 2023, the cumulative number of patent applications was 7,756, including 6,725 at home and 1,031 abroad; the cumulative number of patents awarded was 4,123, with an increase of 43.3%. Among them, 1,417 invention patents granted, accounting for 34.4% of the total. In 2023, the Company won China Patent Silver Award and Anhui Provincial Patent Gold Award.

Cumulative number of patent applications



Cumulative number of patents awarded



The Company has established a sound patent early warning mechanism. The Company regularly publishes patent early warning reports and patents technology panoramic investigation reports to help R&D strategic planning, and searches and analyzes patent risks to reduce product infringement risks. The Company has set up an intellectual property and lawyer team to actively take measures to deal with intellectual property disputes, and to comprehensively safeguard the Company’s rational interests. In conducting cooperation with the outside, the intellectual property team assisted in reviewing the intellectual property clauses of relevant contracts more than 50 times, and clarified the ownership, use, maintenance, and risk of intellectual property with partners. Moreover, the team provides the partners with the reliable R&D results sharing mechanism.

In order to enhance employees’ awareness of intellectual property protection, the Company sets the patent engineer to develop appearance, software program patent application writing standards, risk protection and corresponding training courses. We has organized 46 training sessions for R&D personnel, involving more than 1,700 people. Besides, the professionals from patent agencies and law firms are invited to regularly carry out job training for patent engineers.

In order to encourage R&D personnel to innovate, in the patent application, granting, implementation and other stages, the Company offers different incentives. In 2023 the Company awarded 1,273 people, with a cumulative reward of CNY5.85 million.

## Patent Awards



### Annual Special Contribution Award for Technological Innovation

The employees who have applied for more than 4 invention patents as the first inventor in the year shall be granted the annual special contribution award for technological innovation.



### Value Patent Award

The people who have been granted with patents which are very creative and pragmatic, make the Company take the initiative or win in intellectual property disputes or negotiations, help to improve the products, or serve as prominent selling points to promote sales and bring great economic benefits to the Company shall be awarded.



### Patent Protection Award

The employees who provide clues about competitors’ infringement of intellectual property rights and start the patent protection process in a timely manner shall be offered incentives according to the value of the information.

## Industry-Academy-Research Cooperation

The Company gives full play to its leading role in the industry, promotes technological progress by building an industry cooperation and exchange platform, presides over and participates in the revision of domestic and foreign standards, and strengthens industry-academy-research cooperation, to continuously promote the industrial development. In 2023, the Company participated in and presided over the formulation of 14 standards, including 9 national standards. So far we have participated in and presided over the formulation of 74 standards including 32 national ones. The Company has formulated the *Regulations on the Industry-Academy-Research Project Management*, the *Regulations on Attendance Management of Interns at*

*the Central Research Institute*, the *Instructions on Evaluation of the Industry-Academy-Research Project* to standardize the project management of the Company. At present, we are cooperating with domestic and foreign universities, including Hefei University of Technology and Shanghai Jiao Tong University in China, Virginia Tech in the United States, and Aachen University in German, on more than 20 projects.

In addition, Sungrow has joined the industry organizations and performed important functions therein. We work together with the partners to advance industrial development and industrial innovation. The Company has joined the organizations as follows:

Organization	Role
China ESG Leaders Association	Member
China Photovoltaic Industry Association	President
China Power Supply Society	Vice President
China Green Supply Chain Alliance	Director
Trust and Integrity Enterprise Alliance	Member
Asian Photovoltaic Industry Association	Vice President
ACFIC New Energy Chamber of Commerce	Vice President
China Renewable Energy Society	Director
China Energy Storage Alliance	Vice President
China Industrial Design Association	Director
New Energy Electrical Appliances Alliance	Vice President
New Energy Association of Anhui Province	Vice President

## Digital Transformation

In 2023, Sungrow continued to accelerate digital transformation, and carried out digital construction in the four dimensions of business architecture, application architecture, data architecture and technology architecture. In order to ensure the implementation of digitalization, the Company has increased

investment regarding strategy, organization, talent and funding. Upholding the goal of "Creating smart digital Sungrow to achieve global leadership", the Company has gradually built itself into a smart digital enterprise.



The Digital Transformation Management Committee of the Company composed of the Chairman of the Board and the heads of various business areas makes decisions on major issues concerning digital strategy and resource investment. The process and digital center has been transformed from the original single organizational structure into the five major organizational systems of process management, digital planning, digital execution, digital support, data and application, to provide all-round support for digitalization.

Digital transformation promotes the Company's ESG practice. The Company built a digital energy and carbon management platform in 2023 on the basis of real-time monitoring of water, electricity, gas, compressed air and other energy use,

implemented the energy efficiency assessment system, and established the energy-saving guidance mechanism, to achieve energy conservation and consumption reduction. In addition, through the SRM platform, we strengthened green supply chain management, integrated ESG into the life cycle management of procurement, and improved the capabilities of ESG risk management and control.

## A Case

### The MOM platform supports the construction of Sungrow Digital Factory

In order to improve the efficiency of manufacturing management, realize multi-factory collaboration, and build the Group's intelligent manufacturing platform, the Group comprehensively upgraded the existing MES to achieve full traceability of the production process from the planning to the warehousing of finished products. The on-site production efficiency was improved through JIT supply, abnormality warning and closed-loop management; manufacturing costs were reduced from the dimensions of labor, material stagnation, and spare parts inventory of manufacturing equipment. Continuous optimization of process quality and technology was supported by process data, visualization of key indicators and lean improvement of system construction.



# 03

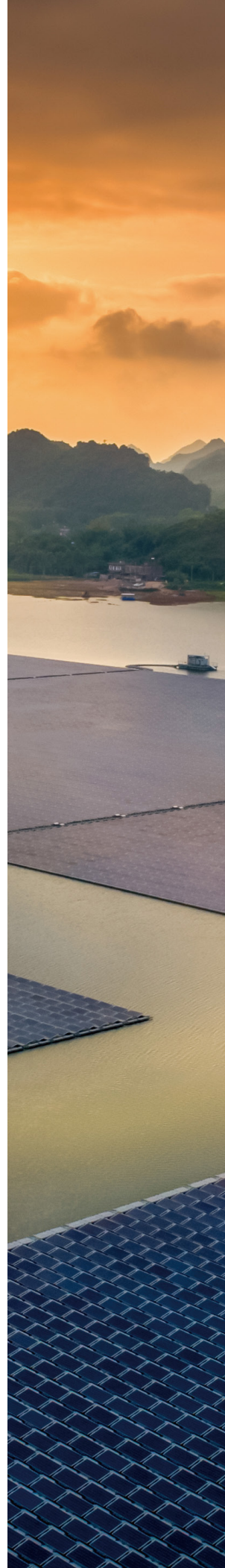
## Towards Net Zero

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### Sungrow Climate Information Disclosure Report

In the context of the continuous intensification of global climate change, Sungrow is fully aware of the serious impact of climate change on its own operations and business development. Based on the recommended framework of the *International Financial Reporting Standard for Sustainable Disclosure No. 2: Climate-related Requirements for Sustain-*

*able Financial Disclosure (IFRS S2)*, we endeavor to identify the climate risks and opportunities associated with the Company's operation. Based on the results of the identification, coping measures were taken to manage the impact of climate change on the Company.



Four Pillars	Contents
Governance	<ul style="list-style-type: none"> <li>The Strategy and Sustainable Development Committee of the Board of Directors participates in the deliberation and decision-making of major ESG matters, including climate change, conducts supervision and assumes overall responsibility for climate change matters.</li> <li>The Sustainable Development Management Office is responsible for guiding the formulation of climate change-related management objectives, monitoring the implementation of climate risk management, and using the PDCA model to carry out climate management.</li> </ul>
Strategy	<ul style="list-style-type: none"> <li>We comprehensively identify and analyze 12 important climate-related risks and opportunities based on sector interviews, expert judgment, and other methods, and assess their current and future financial impact on the Company's business model and value chain.</li> <li>We pursue a strategic goal of "moving towards net zero" to reduce the risk of climate change through energy substitution, daily energy conservation, promoting green production of products, green power use, and carbon emission management in the supply chain.</li> </ul>
Risk management	<ul style="list-style-type: none"> <li>Through the development of climate-related risk and opportunity identification, analysis, management, and control processes, we comprehensively manage climate-related risks, and incorporate climate-related risk into the Company's comprehensive risk management system.</li> <li>We carry out climate scenario analysis, select 5 representative asset points of the Company to conduct quantitative analysis upon climate scenarios, and calculate physical value-at-risk (PVaR) and carbon value-at-risk (CVaR), to assess climate-related financial impact.</li> </ul>
Indicators and targets	<ul style="list-style-type: none"> <li>We identify greenhouse gas emission and energy management indicators and establish corresponding targets.</li> <li>Every year, the statistics, analysis and disclosure of indicators regarding greenhouse gas emissions are carried out to evaluate the Company's management of climate change, and accordingly improve plans to promote energy conservation and emission reduction.</li> </ul>

## Governance

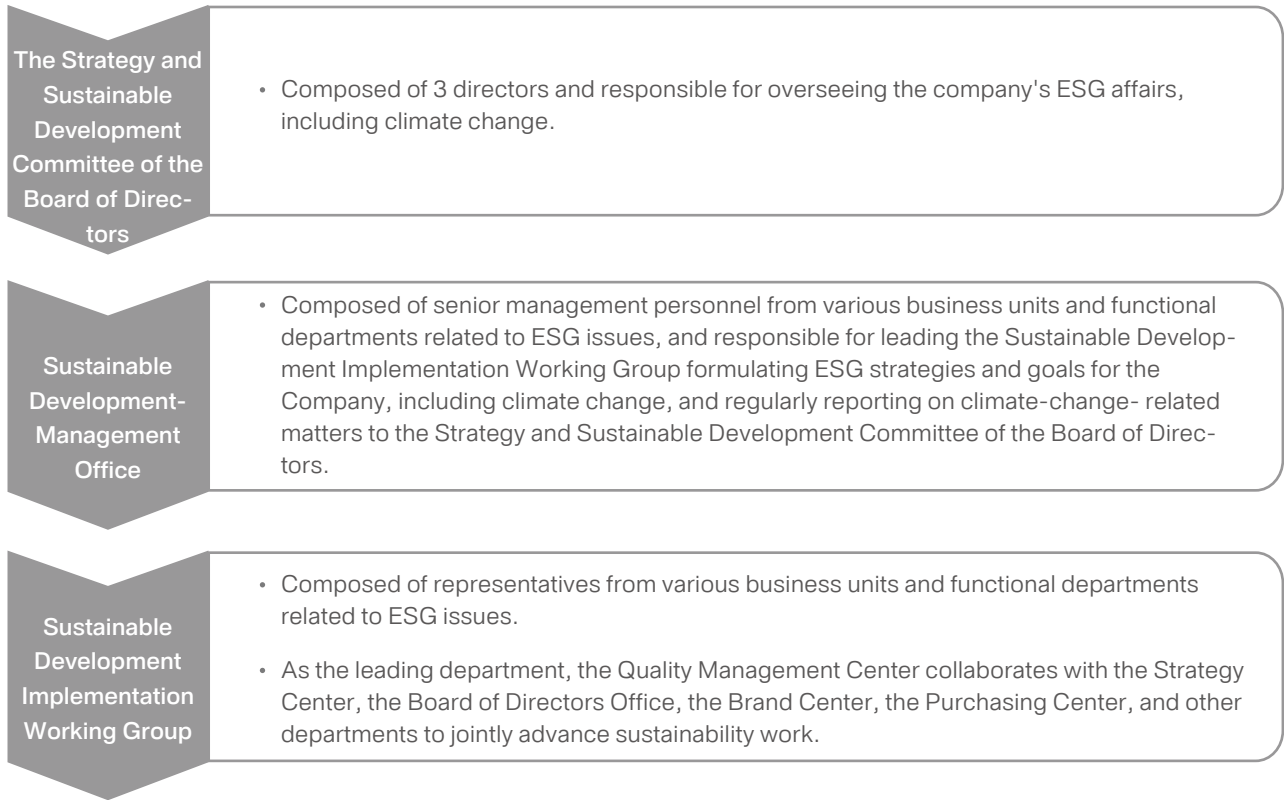
Sungrow proactively integrates the concept of sustainability into the Company's business and management.

In 2023, the Company formulated the *Sustainable Development Management Regulations*, and established a three-tier sustainability management structure of the Strategy and Sustainable

Development Committee of the Board of Directors, the Sustainable Development Management Office, and the Sustainable Development Implementation Working Group, with multiple departments working together to advance the Company's climate-related work.



### Sungrow’s Governance Framework to Deal with Climate Change



### Governance Mechanism of the Board of Directors

Sungrow has established a Strategy and Sustainable Development Committee at the board level as the highest governance body to coordinate and supervise the Company’s climate-related work. The Company formulated the *Working Rules of the Strategy and Sustainable Development Committee of the Board of Directors*, specifying that the Committee is mainly responsible for

conducting feasibility study and advising on the Company’s long-term strategic development plan, major strategic investment, operational risk management, and strategic objectives and policies for addressing climate change. The Committee reports to and is held accountable to the Board of Directors.

#### Responsibilities Related to Climate Change of the Strategy and Sustainable Development Committee of the Board of Directors:

- Conducting feasibility studies and making recommendations on the Company’s sustainability regarding climate change and ESG-related matters;
- Studying and advising on the Company’s operational risks, including but not limited to sustainability risks and climate-related risks;
- Supervising the implementation and improvement of environmental work, regularly reviewing the Company’s reports related to sustainability and environmental issues, and reporting to the Board of Directors on the progress of the work related to climate issues as measured by key performance indicators.



The Strategy and Sustainable Development Committee of the Board of Directors is composed of three directors to ensure the effectiveness of the supervision and promotion of climate issues at the Board level. They all work in the new energy industry and are competent in managing risks and opportunities related to climate change. Among them, Cao Renxian, Chairman and one of the Committee members, is currently Chairman of the China Photovoltaic Industry Association. He attended the 2023 World Manufacturing Conference and delivered the keynote speech on “Cohesion and Commitment to the Great Cause of Green Energy Manufacturing”, which analyzed green energy innovation and cost reduction, and illustrated the overall trend of the traditional energy “impossible triangle” of green, security and economy. The background of the other members of the Committee can be

found in the “Corporate Governance Structure” section of this report.

The Strategy and Sustainable Development Committee of the Board of Directors regularly conducts feasibility studies and makes recommendations on strategic objectives and policies related to the environment such as climate change, and holds meetings at least once a year. In 2023, the Committee reviewed and approved proposals such as the “Climate-related Strategic Objectives Such as Carbon Neutralization of Sungrow and the Paths”, and reviewed and approved climate change-related measures on the purchase of green power and rooftop photovoltaic construction, continuously following up on and reporting to the Board on the implementation of climate-related targets.

## Governance Mechanism of Management

The Office of Sustainable Development Management under the Strategy and Sustainable Development Committee of the Board of Directors, as the governing body for climate issues, is responsible for leading the Sustainable Development Implementation Working Group, formulating climate-change-related strategies

and goals, and regularly reporting to the Committee on the Company’s climate change related matters. The office members are composed of senior management members of various divisions and functional departments.

### Climate Change-related Responsibilities of the Office of Sustainable Development Management:

- Coordinating the formulation of ESG strategy and medium- and long-term planning, and providing guidance for the Company’s management in coping with climate change;
- Urging each business segment of the Company to formulate environmental management objectives according to the operating conditions, regularly review the rationality and advancement of the objectives, and continuously monitor the achievement of the objectives;
- Reviewing the legal and regulatory requirements for climate information disclosure, evaluating the current status of the Company’s climate-related indicator information management, and reviewing and releasing the Company’s annual sustainability report.

Bearing the risks in mind, the Company adopts the “PDCA (Planning-Doing-Checking-Acting)” model to carry out sustainability and climate-related management and promote closed-loop handling of problems, to ensure that work process-

es are adequately resourced and managed to minimize the adverse impact of climate change, and to seize opportunities and promote the Company’s sustainable development.

Specific Links	Contents
Plan (P)	<ul style="list-style-type: none"> <li>• Identifying climate-related priorities by establishing effective stakeholder identification and participation mechanisms.</li> <li>• Through the identification of climate-related risks and opportunities, each department assesses their impact on the Company’s financial operation in the short, medium and long term, integrates them into the Company’s overall strategic planning, and determines the corresponding climate-related indicators as well as the resources needed to achieve the results.</li> </ul>
Do (D)	<ul style="list-style-type: none"> <li>• Implementing the planning, including improving relevant rules and regulations, formulating action plans, building the required system platform, implementing risk control measures, and conducting training among relevant personnel.</li> </ul>
Check (C)	<ul style="list-style-type: none"> <li>• According to the planning, objectives, requirements, and planned activities, monitoring and evaluating the implementation process and results, and sorting out results (such as sustainability reports, etc.) for internal and external communication, and to be regularly disclosed.</li> </ul>
Act (A)	<ul style="list-style-type: none"> <li>• According to the monitoring and evaluation results, taking necessary measures to improve the performance and effectiveness of management, and regularly report to the senior management of the Company.</li> </ul>

# Risk Management

## Climate Change Risk Management

Fully aware of the impact of climate change and the necessity and urgency of taking countermeasures, Sungrow actively responded to the national “Carbon peaking and Carbon neutrality” goal and followed international standards. In accordance with the requirements of IFRS S2 and other standards, we carried out the identification, analysis, supervision and control of environmental and climate-related risks and opportunities, laying the foundation for optimizing the Company’s environmental and climate risk management and grasping development opportunities. The Sustainable Development Implementation Working Group is responsible for collecting climate-related information from the

government, society and internal sources, and regularly reviewing and reporting to the management. The Board of Directors and the management identify and review risks, and adopt scientific and objective evaluation methods to rank risks, integrate climate-related risks into the overall risk management of the organization in combination with the key activities of the Company’s operation, and form a list of climate-related risks and key control directions, so as to provide input and basis for the formulation and adjustment of climate-related strategies and the determination of target indicators for the work program.

## Sungrow’s Climate Risk Identification Process

### Identification:

- We pay attention to and analyze climate-related policies, laws and regulations; collect climate-related research reports of the industry, research institutions and media; and benchmark international and domestic best practices on climate information disclosure. Based on the actual situation of the company, 19 physical risks, transition risks and opportunities with greater impact on the company were identified, and climate-related risk management was incorporated into the company’s comprehensive risk management system.



### Analysis and Evaluation:

- We conduct on-site interviews with key business departments and functional departments, evaluate the impact of climate-related risks and opportunities on the Company. Taking into account expert judgment and other methods, we focus on 12 risks and opportunities which are assessed and ranked by the occurrence probability and the magnitude of impact.
- Assessing the current and expected impact of climate-related risks and opportunities on the Company’s business model and value chain, including the concentrated areas under impact (business processes, geographical regions, major asset categories) and time frames (short-term, medium-term, long-term) as well as the financial impact.



### Supervision and Control:

- Developing strategies to address climate change, identifying climate-change-related indicators, and developing goals and action plans centering on key indicators.
- Decomposing indicators and goals layer by layer and specify execution work, and developing and implementing coping measures.

Sungrow continues to strengthen its ability to identify and manage climate change-related risks, integrating climate risks into existing risk management processes. Climate-related risks can be divided into two broad categories: Physical risks related to climate change and transition risk related to climate change

and low-carbon economy. The Company has identified 6 physical risks, 9 transition risk and 4 opportunities, totaling 19 climate-related risks and opportunities that have a great impact on the Company.

### Sungrow Climate-Related Risk and Opportunity Pool

Type of Risk / Opportunity	Main Categories	Specific Risks / Opportunities
Physical risk	Acute physical risk	<ul style="list-style-type: none"> <li>• Flood</li> <li>• Heat wave</li> <li>• Extreme cold (including blizzard)</li> <li>• Extreme weather such as hurricanes and tornadoes</li> </ul>
	Chronic physical risk	<ul style="list-style-type: none"> <li>• High temperature and heatwave (refers to the increasing average temperature)</li> <li>• Sea levels on the rise</li> </ul>
Transition risk	Policy and legal risk	<ul style="list-style-type: none"> <li>• The shortage of tradable carbon resources in the carbon market and the rising price of carbon</li> <li>• Implementation of the carbon tax</li> <li>• Enhanced disclosure obligations of carbon reporting and carbon footprint</li> <li>• Policy requirements in terms of carbon emissions reduction for existing products and services</li> <li>• Litigation risk arising from carbon emissions not meeting the requirements of relevant laws and regulations</li> </ul>
	Technical risk	<ul style="list-style-type: none"> <li>• Development costs of low carbon emission technologies for existing products and services</li> </ul>
	Market risk	<ul style="list-style-type: none"> <li>• Increased demand from customers for carbon reduction of products</li> <li>• Cost increase in procurement of low-carbon raw materials and renewable energy</li> </ul>
	Reputational risk	<ul style="list-style-type: none"> <li>• The reputational risk from failure to meet carbon reduction targets</li> </ul>
Opportunity	Energy sources	<ul style="list-style-type: none"> <li>• Using low-emission energy to improve resource efficiency and reduce operating costs</li> </ul>
	Policies and laws	<ul style="list-style-type: none"> <li>• International/national policies' support for the new energy industry</li> <li>• Economic benefits of carbon market trading</li> </ul>
	Products and services	<ul style="list-style-type: none"> <li>• Increased demand for low-carbon emission products and services (such as photovoltaic and energy storage technology)</li> </ul>

Each department has figured out ways to identify and respond to climate-related risks, recorded the risk assessment results in the *Risk and Opportunity Evaluation Analysis Form*, calculated the

risk coefficient according to the severity and frequency of the risk, developed coping measures accordingly and followed up on the implementation.

### A Case: Formulate a Special Emergency Plan for Rainstorm Disaster Prevention

In order to appropriately and effectively carry out work in anticipation of rainstorms, minimize the loss and impact caused by the rainstorm, and ensure the safety of the Company’s employees’ lives and property, the Company has formulated the *Special Emergency Plan for Rainstorm Disaster of Sungrow*.

The Company has set up the emergency rescue headquarters, whose office is located in the Comprehensive Management Department of Safety and Environment, to carry out unified leadership and coordination of work against rainstorm disasters; all departments and workshops are responsible for their share of work; and all employees participate. Scientific methods are taken to eliminate hidden dangers and solve problems. The Company has put in place five work systems, including a unified command system, a smooth communication system, a reinforced duty system, a regular reporting system and a responsibility investigation system.

The rainstorm warning signals are divided into four levels according to the rainstorm’s approaching time and intensity, which are respectively represented by red, orange, yellow and blue. The preset plans are divided into three levels, namely, Level-1 response (the highest level), Level-2 and Level-3. For different levels of rainstorm warnings, the Company has established a sound emergency plan to reduce the impact of rainstorm disasters and ensure the Company’s business continuity.



## Climate Scenario Analysis

The main operating address of Sungrow is Hefei City, Anhui Province, China, and some production addresses are located in Bangalore, India, and Chonburi, Thailand. Due to different geographical locations, the Company’s main asset points face different climate physical risks; the Company’s climate transition opportunities and costs also vary according to the national and regional carbon emission reduction regulatory policies.

Sungrow selected 5 representative asset points of the Company for quantitative analysis of climate scenarios, and calculated the

physical value-at-risk (PVaR) and carbon value-at-risk (Carbon Value-at-Risk) by calculating the physical value-at-risk (PVaR). The CVaR assesses climate-related financial impacts. Among them, Sungrow Renewable’s operational sites for new energy projects are distributed worldwide, accounting for a larger proportion. The scenario analysis focused on the operational site in Hefei, while the operational sites of projects will be disclosed in the future.

### Sungrow 5 Representative Asset Points Physical and Transition Risks Thermal Map

Assets	Physical Value at Risk				Carbon Value at Risk
	Sea level rise PVaR	The flood PVaR	High temperature and heat wave PVaR	Extreme cold PVaR	CVaR
Sungrow	Low	High	Medium	Low	Medium
Sungrow Renewables	Low	High	Medium	Low	High
Sungrow Energy Storage	Low	High	Medium	Low	Medium
Factory in India	High	Low	High	Low	Medium
Factory in Thailand	High	Medium	High	Low	Medium



**Legend:**

Climate-related risk impact:



The impact is minor

The impact is significant

Climate-related opportunities:



The opportunity is minor

The opportunity is obvious

For the physical risk analysis, the Intergovernmental Panel on Climate Change (IPCC) RCP 8.5 scenario was selected. It is a baseline scenario without climate change policy intervention. Under this scenario, global greenhouse gas emissions and

concentrations keep going up, and global temperatures are projected to be more than 4° C above pre-industrial levels by the end of this century.

The physical risk analysis results show that under the RCP8.5 scenario where climate disasters continue to increase:

- The potential impact of sea level rise and heat waves on the factories in India and Thailand is relatively significant.
- The three domestic assets are all based in Hefei City, notably prone to flood risk.
- For the five asset points, the losses incurred by the extreme cold risk are low, all standing below 2%.

The transition risk analysis selected the delayed transition scenario of the Network for Greening the Financial System (NGFS) of PBC and regulators. This scenario assumes that governments delay (usually after 2030) and suddenly conduct

the promulgation of low-carbon transition policies, with the policy effect increasing rapidly year by year.

The results of the transition risk analysis show that under the delayed transition scenario where the social cost growth of carbon is delayed but abruptly happens later:

- As the key business of Sungrow concerns photovoltaic and energy storage equipment, and component manufacturing as well as other new energy-related things, the overall climate opportunities are greater than the climate risks, and the introduction of transition policies will also bring corresponding dividends to the Company. The resulting CVaR is negative, namely, the resulting climate profits are greater than the costs.
- Among the five asset points, Sungrow Renewables' core business is the development of new energy power plants where the climate opportunity is relatively significant, with a CVaR of -15.82%.

Sungrow will continue to explore the risks and opportunities under other climate scenarios, and continue to pay attention to the policy progress and physical risk changes related to climate change mitigation and adaptation in the countries and regions

where it operates. We will take appropriate measures to improve the climate resilience of assets and seize climate opportunities in a timely manner. For specific measures, see the sub-section "*Climate-related strategies and actions*".

# Strategy

## Climate-related Risks and Opportunities

Based on the division and definition of environmental and climate risks in IFRS S2, the substantive assessment of various climate change risks and opportunities was conducted from the dimensions of the probability of occurrence and degree of impact, and 12 climate-related risks and opportunities were identified and

ranked by considering its own business development layout and characteristics and referring to the industry risk review, importance assessment, department interviews in association with external expert opinions.

## Relevant Definitions of Climate-Related Risks and Opportunities

<p><b>Time frame of impact</b></p>	<ul style="list-style-type: none"> <li>• Different climate-related risks and opportunities will affect the Company in different time frames, and the Company divides the time frames of impact into short-term (0-1 year), medium-term (1-5 years), and long-term (more than 5 years).</li> <li>• For <b>short-term</b> climate-related risks and opportunities, the Company has developed a rapid response mechanism and carries out targeted management.</li> <li>• In response to <b>medium-term</b> climate-related risks and opportunities, the Company has developed a strategy to cope with climate change and a plan to efficiently implement resource allocation, so as to ensure stable development momentum despite the increasingly severe climate challenge. At the same time, the Company seizes new opportunities for sustainability.</li> <li>• For <b>long-term</b> climate-related risks and opportunities, the Company pays close attention to the impact of climate-related risks and opportunities, anticipating and assessing the need to develop response strategies in advance.</li> </ul>
<p><b>The magnitude of the impact</b></p>	<ul style="list-style-type: none"> <li>• The magnitude of the impact is determined by the level of climate risk impact and the likelihood of climate risk, with such factors as financial loss, reputational loss, litigation or fines, and loss of strategic partners taken into account.</li> <li>• The affected magnitude of finance ranged from "low" to "high".</li> </ul>
<p><b>Probability of occurrence</b></p>	<ul style="list-style-type: none"> <li>• It refers to the interval and possibility of risk occurrences, which are mainly judged according to the existing frequency of occurrences, external scenarios, the progress of policy implementation and expert forecasts.</li> <li>• The probability of occurrence ranges from "low" to "high".</li> </ul>
<p><b>Analysis of the affected value chain links and finance</b></p>	<ul style="list-style-type: none"> <li>• <b>Product R&amp;D link - increase in R&amp;D cost:</b> In order to improve the product that should be waterproof, and resistant to cold and high temperatures, R&amp;D expenses will be incurred in trying to use low-carbon recyclable raw materials to reduce energy consumption in production, and to develop new energy-related products.</li> <li>• <b>Increase in the cost of supply chain management:</b> Increase in the cost of carrying out supply chain carbon emission data management, building a supplier carbon emission database, and procuring low-carbon raw materials.</li> <li>• <b>Production and delivery links - increase in production costs:</b> First, when the product is produced or installed, if the factory or project is shut down due to climate disasters, if the product is detained for a prolonged time in the storage link, and if countermeasures such as protection against the cold and cooling down are taken, more costs will be incurred. Second, the purchase of green products, like green transport capacity, green power and biodegradability incurs green premium costs. Third, there is the cost related to carbon tariffs.</li> <li>• <b>Routine operation links - increase in operating costs:</b> When we check carbon inventory of the organization, do carbon footprint accounting, build energy management system, design green products, purchase green electricity, build rooftop photovoltaics, and switch to electric vehicles, there are costs in all the links.</li> </ul>

Analysis of the affected value chain links and finance

- **Product operation and maintenance links - depreciation of assets and increase of operation and maintenance costs:** First, depreciation of assets is caused by the impact of extreme climate disasters on the Company's factories and equipment. Second, with the products delivered to customers, if the facilities and equipment are affected by climate disasters, we need to repair them and take protective measures against the climate disasters that may recur. In this process, costs are incurred, too.

There are several financial implications:

- **Increase in asset investment:** Investment in the construction of photovoltaic power plants and installation of energy storage equipment; and asset investment in new business production lines.
- **Increase in operating income:** Operating income from increased global demand for new energy sources such as photovoltaics and energy storage.

Sungrow climate-related risks and opportunities significance matrix



### Value Chain Links Affected by Climate-related Risks and Opportunities

No.	Climate-related risks and opportunities	Value chain links affected					
		Product development	Supply chain	Production	Routine operation	Product delivery	Product operation and maintenance
1	Acute physical risk: Flooding	Average	Medium	High	High	Average	High
2	Acute physical risk: High temperature and heatwave	Average	High	High	High	High	High
3	Acute physical risk: Extreme cold (including blizzard)	Medium	High	High	High	High	High
4	Acute physical risk: Enhanced disclosure obligations of carbon emission reporting and carbon footprint	Medium	High	High	High	Medium	Average
5	Policy and legal risks: Enhanced carbon emission reporting, carbon footprint disclosure obligations	Medium	High	High	Medium	Average	Average
6	Policy and legal risks: The implementation of carbon tariffs	Medium	Average	High	Medium	High	Average
7	Policy and legal risks: Shortage of tradable carbon resources in the carbon market and rising carbon prices	Medium	Average	High	High	Average	Average
8	Market risk: Customers' increased demand for carbon emission reduction of products	High	Average	High	Medium	Average	Average
9	Market risk: Increased procurement costs of low-carbon raw materials and renewable energy	Average	High	High	Average	Average	Average
10	Reputational risk: Reputational risk arising from failure to meet carbon reduction targets	Medium	High	High	High	Average	Average
11	Market opportunities: International / national policies' support for the new energy industry	High	Average	High	Average	Average	Average
12	Market opportunities: Economic gains from carbon market trading	High	Average	High	Average	Average	Average

Note:





For climate-related physical risks, the Company is mainly based in Hefei, Anhui Province, China, which is located in the middle and lower reaches of the Yangtze River and enjoys the subtropical monsoon climate as there are the headquarters offices, R&D and production workshops in the city. Some of its marketing, R&D, production is scattered in Beijing, Shanghai, Nanjing, Huainan (adjacent to Hefei, with similar geographical conditions), Bangalore, India, and Chonburi, Thailand, etc. In terms of production capacity, about 80-90% of the production capacity is in Hefei area, and the climate change around Hefei is closely related to the Company's operation. The Company's products and services are seen in more than 170 countries and regions around the world, including urban, rural, coastal, island, desert and high-altitude areas and other environments. The Company's supply chain mainly operates in Chinese mainland. Some key components such as semiconductors come from overseas, and they are under the complicated impact of climate change in various places.

In response to climate-related transition risks, the Company, as an important supplier of clean energy technologies, is in an industry that is positively related to global climate improvement

actions. With the increasing global attention to climate change, governments and international organizations are stepping up the development and implementation of regulations to deal with climate change, and the new energy industry faces ever-growing carbon reduction requirements and challenges.

With regard to climate-related opportunities, the Company's main business concerns the new energy-related fields, focusing on the research and development, production, sales and services of new energy power equipment such as solar energy, wind energy, energy storage, hydrogen energy and electric vehicles. The Company stays committed to the core business related to "solar energy, wind energy, energy storage and hydrogen", keeps stepping R&D, and continues to accelerate the clean power conversion technology innovation and result transformation by relying on its six major research and development centers worldwide. The Company provides innovative products and services to customers in more than 170 countries and regions.

The following table details the value chain links, time frame, concentrated exposure areas, impact path and financial impact of the 12 risks and opportunities.

Risks and opportunities	Time frame of impact	Geographic areas where exposures are concentrated	Value chain links affected	Impact path	Statement of financial impact
① Acute physical risk: Flooding	Short term, medium term, long term	China	Production, daily operation	The production infrastructure is damaged due to the flooding of the factory, and it is necessary to maintain or replace the equipment.	<ul style="list-style-type: none"> <li>Operating costs: Increased facility maintenance costs</li> <li>Asset depreciation: Infrastructure faces accelerated depreciation and is scrapped ahead of schedule</li> </ul>
			Product operation and maintenance	When the power station of customers in mountainous and remote areas is flooded, if the project is still in the warranty period, it is necessary to invest operation and maintenance funds to repair the power station. For example, we pump water in the power distribution room, test whether the product is damaged, and conduct maintenance work.	<ul style="list-style-type: none"> <li>Operation and maintenance cost: Increase in product maintenance cost</li> </ul>
② Acute physical risk: High temperature and heatwave	Short term, medium term, long term	Bangalore, India; Chonburi, Thailand	Supply chain	In view of the high temperature and heat wave, the state restricts power supply to high-energy-consuming supplier enterprises, which leads to the suppliers' untimely delivery, logistics interruption, and longer production cycles.	<ul style="list-style-type: none"> <li>Production cost: The longer the preparation time is, the higher the storage cost and the higher the capital cost will be</li> </ul>
			Production, daily operation	Hot weather increases the demand for cooling; the state restricts power supply to high energy-consuming enterprises, and factories have the risk of shutdown; employees have difficulty traveling to work.	<ul style="list-style-type: none"> <li>Production costs: Factory power supply costs and labor costs increase</li> </ul>

Risks and opportunities	Time frame of impact	Geographic areas where exposures are concentrated	Value chain links affected	Impact path	Statement of financial impact
			Product delivery	Extremely hot days in summer lead to increased exertions of physical strength for outdoor work. To stop work in extremely hot hours will reduce production efficiency and installation efficiency, and lead to longer production cycles and delivery risks.	<ul style="list-style-type: none"> <li>• Cost of production: Increased labor costs</li> </ul>
			Product operation and maintenance	A hot environment has an impact on the performance of the Company's products, causing the products to malfunction or have a shortened service life.	<ul style="list-style-type: none"> <li>• Operation and maintenance cost: Increase in product maintenance cost</li> </ul>
③Acute physical risk: Extreme cold (including blizzard)	Short term, medium term, long term	China	Supply chain	Due to extremely cold weather, suppliers do not deliver goods on time, and logistics become interrupted, which leads to an even longer production cycle.	<ul style="list-style-type: none"> <li>• Production cost: The longer the preparation time is, the higher the storage cost and the higher the capital cost will be.</li> </ul>
			Production, daily operation	Extreme cold weather increases the demand for heating; employees have difficulty traveling to work.	<ul style="list-style-type: none"> <li>• Increased production costs: Increased factory power costs and labor costs</li> </ul>
			Product delivery	In the areas severely affected by extreme weather, such as the northwest and northeast of China and some areas of Europe, extreme weather suspends the implementation of some projects, so there is the risk of failing to deliver the product on time.	<ul style="list-style-type: none"> <li>• Cost of production: Default costs due to failure to deliver the product on time</li> </ul>
			Product operation and maintenance	The sharp drop in the environmental temperature has an impact on the performance of the Company's products, causing the products to malfunction or have a shortened service life; in the event of a blizzard, the power station may be crushed by the blizzard.	<ul style="list-style-type: none"> <li>• Operation and maintenance cost: Increase in product maintenance cost</li> </ul>
④Acute physical risk: Extreme weather such as hurricanes and tornadoes	Short term, medium term, long term	China	Supply chain	Affected by extreme weather such as hurricanes and tornadoes, suppliers do not ship in time and logistics are interrupted, which leads to an even longer production cycle.	<ul style="list-style-type: none"> <li>• Production cost: The longer the preparation time is, the higher the storage cost and the higher the capital cost will be.</li> </ul>
			Production, daily operation	When the meteorological department issues a meteorological orange and red warning, some production and operation activities may have to be suspended. The extreme weather will directly damage infrastructure and houses or indirectly damage the facilities due to the fall of trees and the collapse of power lines	<ul style="list-style-type: none"> <li>• Increase in production costs: Increase in labor costs</li> <li>• Operating costs: Increased facility maintenance costs</li> </ul>
			Product delivery	When the meteorological department issues a meteorological orange and red warning, some production and operation activities may have to be suspended.	<ul style="list-style-type: none"> <li>• Cost of production: Increased labor costs</li> </ul>

Risks and opportunities	Time frame of impact	Geographic areas where exposures are concentrated	Value chain links affected	Impact path	Statement of financial impact
⑤ Policy and legal risks: Enhanced disclosure obligations of carbon emission reporting and carbon footprint	Medium term, long term	Europe and America	Supply chain, production	The Company's business is concentrated in Europe and the United States. Currently, the EU and other overseas regulators are gradually rolling out even higher requirements on carbon emission and products' carbon footprint information disclosure. For example, the EU's new battery law requires the disclosure of battery carbon footprint, which will affect the development of the Company's energy storage business.	<ul style="list-style-type: none"> <li>Operating costs: The cost of information disclosure increases, with the cost of carbon accounting in all links included.</li> </ul>
⑥ Policy and legal risks: The implementation of carbon tariffs	Medium term, long term	Europe and America	Production and delivery of products	The EU's Carbon Border Adjustment Mechanism (CBAM) makes it clear that the EU will formally impose a carbon tariff in 2026, and the US Clean Competition Act (CCA) also proposes to impose a carbon tariff. In 2023, the Company's business income from overseas regions accounted for 45.4% of the total, while overseas regions were mainly the European Union and the United States. If the carbon tariff in the future involves inverters, energy storage equipment, etc., the Company's product costs will rise significantly, which may compromise its competitiveness.	<ul style="list-style-type: none"> <li>Operating costs: Increased costs of exporting products to Europe</li> </ul>
⑦ Policy and legal risks: Shortage of tradable carbon resources and rising carbon prices in the carbon market	Medium term, long term	China	Production, daily operation	Among the first Chinese member companies to have joined RE100, the Company has set a goal of using renewable electricity only for global production and operation by 2028, and has refined and broken down the goal. In order to achieve this goal, the Company will purchase green electricity every year, and the current price of green electricity is not high, but it shows an upward trend.	<ul style="list-style-type: none"> <li>Operating costs: Increased cost of purchasing green electricity</li> </ul>
⑧ Market risk: Customers' growing requirements for carbon emission reduction of products	Short term, medium term, long term	Europe and America	Product research and development, production	More and more overseas customers clearly require the Company to provide basic data on the carbon footprint of products, and horizontally compare the carbon intensity of the products from different suppliers. It is expected that the carbon intensity of products will become a factor for overseas customers to consider in selecting partners in the future.	<ul style="list-style-type: none"> <li>R&amp;D costs: Increased costs of developing low-carbon products</li> <li>Production cost: The cost of purchasing low-energy equipment, adopting low-carbon emission reduction technologies, and carrying out low-carbon management</li> </ul>

Risks and opportunities	Time frame of impact	Geographic areas where exposures are concentrated	Value chain links affected	Impact path	Statement of financial impact
⑨Market risk: Increasing costs of low-carbon raw materials and renewable energy procurement	Short term, medium term, long term	China	Supply chain, production	Most products with green attributes have a green premium, and the Company's procurement of suppliers' low-carbon raw materials such as degradable packaging, green transportation capacity, and green power will increase procurement costs; in order to achieve carbon neutrality in the supply chain, the Company has added requirements for suppliers' carbon management.	<ul style="list-style-type: none"> <li>Supply chain: The cost of adding supply chain carbon emission data management and establishing an intelligent management system</li> <li>Cost of production: Increased cost of purchasing green raw materials</li> </ul>
⑩Reputational risk: Reputational risk arising from failure to meet carbon reduction targets	Medium Term	Global	Supply chain, production, daily operation	The Company has joined the RE100 and EP100 global initiatives and proposed to move towards a net zero goal for carbon emission reduction. If it fails to achieve the goal, it will lose credibility with international organizations, which will affect the Company's brand reputation and then affect its market value. For the Company, there are certain challenges to achieving the net-zero carbon emission reduction target.	<ul style="list-style-type: none"> <li>Operating costs: Failure to meet carbon reduction targets will affect investors' expectations of the Company, or will result in a lower rating and higher financing costs.</li> </ul>
⑪Market opportunities: International / national policies to support the new energy industry	Short term, medium term, long term	Global	Product research and development, production	As a leading enterprise in the new energy industry, the Company has a large growth space. China's "Carbon peaking and Carbon neutrality" policy brings policy and market opportunities for the new energy industry, and Europe has successively rolled out policies such as the <i>Financial Industry Act</i> and those on carbon tariffs, which show increased demand for photovoltaics and energy storage. All these are conducive to the new energy industry development.	<ul style="list-style-type: none"> <li>Business income: The new business brings about an increase in business income.</li> <li>Operating costs: The Matthew effect brings down the production cost per unit product.</li> </ul>
⑫Market opportunities: The economic benefits of carbon market trading	Medium term, long term	China	Product research and development, production	The gradual opening-up of the carbon market will bring new market opportunities for companies.	<ul style="list-style-type: none"> <li>Business income: Increased business income from new business opportunities</li> </ul>



## Climate-related Actions

In response to the identified key risks and opportunities, the Company has organized relevant departments to carry out responding measures to minimize the climate's impact on

finance, market, operation, and reputation. At the same time, the Company endeavors to firmly grasp the opportunities for industry development brought about by climate change.

Risks and opportunities	Response measures
<p>Acute physical risks: ① floods, ② high temperature and heat waves, ③ extreme cold (including blizzards), ④ hurricanes, tornadoes and other extreme weather</p>	<p><b>Product development stage:</b> Improving the product that is waterproof, and resistant to cold and high temperature; and enhancing the product design and protection.</p> <p><b>Supply chain links:</b> Implementing stock-based production and order-based production, and having an in-depth understanding of the power supply limiting policies of the regions where the suppliers are located, such as power supply for two days and power cut for five days or power supply for three days and power cut for four days in some regions of Guangdong. Conducting a comprehensive survey of the suppliers in the Guangdong region for real-time adjustment of Guangdong regional quotas and delivery speed.</p> <p><b>Product production stage:</b> According to the temperature changes of climate disasters, the extreme weather operation falls into high-temperature operation, low-temperature operation, and severe weather operations. In order to forestall the risks caused by extreme weather, the Company plans suitable measures for protection against cold and for cooling at the plant as a whole, and carries out emergency management and control measures in multiple dimensions like adjusting operation time, preparing emergency materials, and conducting personnel protection. Moreover, the Company assigns certain personnel for designated posts, and carries out drills to strengthen the staff's emergency awareness. In 2023, the Company purchased labor protection products (worth CNY1.167 million) for protection against cold and cooling, including sunstroke protection and cooling products worth CNY106,000, the products (worth CNY26,000) for protection against cold, and winter clothing worth CNY1.035 million.</p> <p><b>Product delivery stage:</b> The logistics department plans multiple modes of transportation in advance in light of the early warning of the meteorological department to avoid extreme weather, prepares materials in advance, selects storage of constant temperature and humidity, and strengthens connection with an early warning for customers.</p> <p><b>Product operation and maintenance:</b> If necessary, we may consider purchasing property insurance for related products.</p>
<p>Policy and legal risks: ⑤ enhanced carbon emission reporting, carbon footprint disclosure obligations, and ⑥ enforcement of carbon tariffs</p>	<p>The Company has set up a special team to carry out regulatory research and takes targeted measures to meet the regulations' requirements regarding carbon emission, battery recycling and other aspects.</p> <p>The Company has carried out carbon footprint accounting and carbon emission inventory, and comprehensively investigated the carbon emissions related to the raw materials, processes, Company operation, logistics, and the entire chain of terminals.</p>
<p>Policy and legal risks: ⑦ The shortage of tradable carbon resources and the rising price of carbon in the carbon market</p>	<p>The Company continues to increase the proportion of renewable electricity in the Company's energy consumption through self-owned photovoltaic power plants and the purchase of green electricity. See the subsection of "<i>Climate-related Goals</i>" for specific measures.</p>
<p>Market risk: ⑧ The customer's growing requirements for carbon emission reduction of the product Market risk: ⑨ Increase in the purchase cost of low-carbon raw materials and renewable energy Reputational risk: ⑩ The reputational risk of failing to meet carbon reduction targets</p>	<p>The Company has formulated net zero emission targets and carbon reduction plans for corporate operations and supply chains, and advanced the process of energy conservation and carbon reduction in combination with changes in the Company itself and the external environment. The targets and corresponding actions are detailed in the section "<i>Climate-related Goals</i>".</p>

Risks and opportunities	Response measures
<p><b>Market opportunities:</b> ⑪ <b>International/national policies’ support for the new energy industry</b></p>	<p>The Company runs its own power station through Sungrow Renewables and engages in green power trading. It is the first enterprise in Anhui Province to participate in the carbon market transactions, enjoying cost advantages at the first mover; and through the Sungrow Cloud, it participates in the operation of the power station in custody and the deployment of carbon trading technology.</p> <p>The Company established Sungrow iCarbon Technology Co., Ltd. in 2021, focusing on the new market demand brought by carbon neutrality, and winning customers and markets through the zero-carbon SaaS Platform for business model innovation. We will build core products and capabilities through platform-based carbon management, integrated energy, energy conservation and emission reduction, and energy-carbon operation, so as to provide customers with one-stop, full-life-cycle zero-carbon solutions and services.</p> <p>In 2024, the Company will consider directly participating in market transactions as a primary user.</p>
<p><b>Market opportunities:</b> ⑫ <b>The economic benefits of carbon market trading</b></p>	<p>The Company proactively responded to international and domestic policies and continued to participate in the formulation of relevant policies; gave full play to the leading role, innovated new energy products, reduced carbon emissions of the products, and continued to increase the proportion of new energy R&amp;D investment.</p> <p>The Company began to make its presence in the hydrogen energy business in 2016. Its subsidiary Sungrow Hydrogen has focused on the research, development and production of electrolytic hydrogen, and conducted independent research and development and production of the PWM hydrogen production power supply, alkaline electrolyzer, PEM electrolyzer, separation and purification system, and intelligent hydrogen energy management system. It has built a complete industrial chain for electrolytic hydrogen production to meet the needs of AC and DC coupling and other scenarios, and a flexible, efficient and friendly renewable energy hydrogen production system.</p>

## Indicators and Goals

In order to further implement the management of climate change and improve the effectiveness of climate change management, Sungrow has set relevant indicators around sustainable opera-

tion and clarified carbon neutrality goals and plans. It tracks the progress toward targets through continuous monitoring of the indicators.

### Climate-related indicators

Since 2017, Sungrow has been building and implementing a scientific, standardized and information-based energy management system with reference to ISO50001 and other standards, continuously reducing the Company’s energy consumption and improving energy efficiency, so as to realize the goal of all-round coordinated and sustainable development of enterprises. The Company has an energy management system task force, involving the system management department, equipment power department, production center, logistics service and other departments. It has formulated management systems and procedures like the *Energy Management Manual* and the *Energy Evaluation Procedures*. By the end of 2023, Sungrow Power Supply Co., Ltd. (Xi You Road factory and Changning Avenue factory) and its subsidiary Sungrow Energy Storage Technology

Co., Ltd. have passed the ISO50001: 2018 energy management system certification.

With reference to the IFRS S2 disclosure recommendations, the Company has identified energy-related indicators such as total energy consumption, percentage of grid power, and percentage of renewable energy, and tracks them year by year as key control links of the Company. At the same time, the Company continuously monitors water use data and production activity data to all-roundly manage climate change risks. In 2023, the comprehensive energy consumption stood at 23,421.687 tons of standard coal, an increase of 62.6% over 2022, because the output had expanded. The integrated energy consumption per unit product was 0.0884 kg standard coal/kWh, showing a continuous downward trend.

Category	Indicator name	Units	2021	2022	2023	
Energy consumption	Integrated energy consumption	kg standard coal	9,141,505	14,407,574	23,421,687	
	By type of energy	Electric energy converted into standard coal	kg standard coal	8,874,031	14,052,020	22,960,175
		Total electricity consumption	kWh	72,205,295	114,337,023	186,819,983
		Total non-electrical energy consumption	kg standard coal	267,474	355,554	461,511
	Whether renewable or not	Percentage of the grid electricity used	%	65	55	45
		Percentage of renewable energy used	%	35	45	55
	Energy consumption intensity indicators	Energy consumption per CNY 10,000 of output value	kg standard coal / CNY10,000	3.79	3.58	3.11
		Energy consumption per unit of product	kg standard coal /kWh	0.0907	0.0899	0.0884
Water consumption	Total water consumption	Ton	206,133	316,713	459,024	
	Total displacement	Ton	164,906	253,370	367,219	
	Among them, the proportion of water used from areas with high baseline water pressure	%	0	0	0	
	Among them, the proportion of water used from areas with extremely high baseline water pressure	%	0	0	0	
Activity data	Total installed capacity of power electronic equipment by the end of the year	GW	224	340	515	

Note 1: The selection standard for the conversion coefficient is the *GB/T 2589-2020 General Rules for Calculation of Comprehensive Energy Consumption*, and the unit product energy consumption is converted based on the rated power of the product.

Sungrow proactively conducts carbon inventory and product carbon footprint accounting. Starting from 2020, the Company has been carrying out corporate carbon inventory; The continuous carbon inventory work provides the basic data support for the Company to deal with climate-related risks, reduce carbon

emissions, and enhance the Company's competitiveness and stability. Having been checked by the third-party organization, the carbon emissions of Sungrow in 2023 are shown in the following table:

## Carbon Emission Indicators

Greenhouse gas emissions in tons of carbon dioxide equivalent

Company	Indicator name	2021	2022	2023	Rate of change from 2022 to 2023
Total emission	Total greenhouse gas emissions*	38,234	43,257	8,995,617	-3.48%*
	Scope 1 total greenhouse gas emissions	2,323	3,459	3,594	3.90%
	Scope 2 total greenhouse gas emissions	35,911	39,798	38,161	-4.1%
	Scope 3 total greenhouse gas emissions	/	/	8,953,862	/
Sungrow	Scope 1 Greenhouse gas emissions	2,323	3,311	3,510	6.01%
	Scope 2 Greenhouse gas emissions	35,911	37,816	35,146	-7.06%
	Scope 3 Greenhouse gas emissions	/	/	8,953,862	/
Factory in India	Scope 1 Greenhouse gas emissions	/	141	56	-60.28%
	Scope 2 Greenhouse gas emissions	/	936	1,035	10.58%
	Scope 3 Greenhouse gas emissions	/	/	/	/
Factory in Thailand	Scope 1 Greenhouse gas emissions	/	7	28	300%
	Scope 2 Greenhouse gas emissions	/	1,046	1,980	89.29%
	Scope 3 Greenhouse gas emissions	/	/	/	/

### Scope 3 greenhouse gas emission details

Category	Emission source	GHG emissions /tCO <sub>2</sub> e	Note
Category 3 - indirect GHG emissions from transportation	Product transportation	45,237	Emissions from the entire transportation process of core products, i.e., from factory to project site.
	Material transportation	61,288	Including the emissions generated from the transportation of core materials. The accounting method will be continuously optimized later on along with the improvement of the foreground data of the supply chain.
	Business Travel - Aviation	3,679	Calculated based on actual business travel data of employees throughout the year
	Business Travel - High Speed Rail	1,415	Calculated based on actual business travel data of employees throughout the year
	Employee commuting	506	Calculated based on the annual employee commuting questionnaire
	Waste transportation	32	Emissions from the transportation process of all the municipal, hazardous, and solid waste generated within the factory
Category 4 - indirect GHG emissions from products used	Purchased material	8,470,645	Including the emissions generated from the purchased core materials. The accounting method will be continuously optimized later on along with the improvement of the foreground data of the supply chain.
	Water supply	695	Calculated based on actual water consumption throughout the year
	Waste Disposal	470	Emissions from the disposal phase of all the municipal, hazardous, and solid waste generated within the factory
Category 5 - indirect GHG emissions associated with the use of products	Electricity consumption due to product use	369,898	Emissions from electricity consumption of the core products
Total	/	8,953,862	

Note 1: [Statistical caliber] Sungrow covers Sungrow Power Supply Co., Ltd. and Sungrow Energy Storage.

Note 2: Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur

hexafluoride and nitrogen trifluoride. Scope 1 includes the Company-wide refrigerant substances spilled from air conditioners, dehumidifiers, vehicles and other sources; and greenhouse gas emissions from the combustion of gasoline and diesel in internal and external cargo logistics vehicles and passenger vehicles held by the Company or under the control of the Company. Scope 2 includes indirect greenhouse gas emissions from the grid company's non-green electricity use for the Company's operation. Scope 3 includes employee commuting, business travel, transportation activities related to the product, materials, waste, use of procured supplies, waste disposal, and emissions from the product use). The calculation method and coefficient of scope 1 refer to from the IPCC's 2006 National Greenhouse Gas Inventory Guidelines and the National Development and Reform Commission's *Guidelines for Accounting and Reporting of Greenhouse Gas Emissions from Mechanical Equipment Manufacturing Enterprises (Trial)*, etc. The calculation method and coefficient of scope 2 refer to the Ministry of Ecology and Environment's *Notice on Doing a Good Job in the Management of Greenhouse Gas Emission Reports for Enterprises in the Power Generation Industry from 2023 to 2025*. The calculation method and coefficient of scope 3 refer to the greenhouse gas accounting system *Enterprise Value Chain (Scope 3) Accounting and Reporting Standards*, etc.

Note 3: Considering the first disclosure of Scope 3 emissions in 2023, in order to maintain data comparability, the rate of change in total greenhouse gas emissions is calculated as the sum of Scope 1 and Scope 2.

Note 4: The company shipped approximately 170GW of inverter and converter equipment throughout the year, and based on this calculation, the greenhouse gas emissions per unit product are approximately 56915 tons of CO<sub>2</sub>e/GW. Due to the wide variety of products, the greenhouse gas emission intensity for each category has not yet been calculated.

## Climate-related Goals

In 2020, Sungrow joined the RE100 and EP100 initiatives. Through its own operation, it endeavors to contribute to the "Carbon peaking and Carbon neutrality" goal; it has set clear targets, and created a sustainable low-carbon industrial chain, to promote the harmonious coexistence of enterprises and nature.

In order to achieve the net zero goal, in view of scope 1, scope 2, and scope 3 greenhouse gas emissions, the Company has developed corresponding emission reduction measures to promote the net zero strategy in an all-round way.

Target type	Target content	Progress towards the 2023 target
<b>1. Energy consumption intensity targets</b>	<p><b>2025:</b> ① Energy consumption per unit of product production will be reduced by at least 10% compared with 2020</p> <p><b>2028:</b> ③ Fully complete the deployment of energy management system and improve energy productivity by at least 35% compared with 2018 (EP100 target)</p>	<p><b>Energy consumption per unit product production:</b> The energy consumption per unit product production in 2023 was 0.0884 kg standard coal /kWh, a decrease of 6.75% compared with 2020 (0.0948 kg standard coal /kWh).</p> <p><b>Energy productivity:</b> Energy productivity in 2023 was 386700 yuan/MWh, an increase of 60.32% compared with 2018.</p>
<b>2. Scope 1, Scope 2 total greenhouse gas emission targets</b>	<p><b>2028:</b> ① Achieving carbon neutrality at the operational level (Scope 1 + 2)</p> <p><b>2028:</b> ② 100% of the electricity needed for production and operations worldwide is generated by renewable electricity (RE100 target)</p>	<p><b>GHG Emissions (Scope 1 + Scope 2):</b> GHG Emissions in 2023 (Scope 1 + Scope 2) stood at 41,755 t CO<sub>2</sub> eq, 1,502 t CO<sub>2</sub> eq less than 2022.</p> <p><b>Share of renewable electricity used:</b> Green electricity accounted for 55% of all the electricity used in 2023.</p>
<b>3. Scope 3 total greenhouse gas emissions target</b>	<p><b>2038:</b> Achieving carbon neutrality across the supply chain (Scope 1 + 2 + 3)</p> <p><b>2048:</b> Achieving net zero emissions within supply chain</p>	<p><b>Carbon emissions within supply chain:</b> Improving the threshold of access to supply chain, and continuing to advance the work on collecting the suppliers' carbon inventory data.</p>
<b>4. Water resources management targets</b>	<p><b>2025:</b> ② Water consumption intensity per unit product to decrease by 40% compared with 2020</p>	<p><b>Water consumption intensity per unit product:</b> Water consumption per unit product in 2023 was 2.34kg/kW, which was 37.3% lower than that in 2020 (3.73kg/kW).</p>

Note 1: [Statistics caliber] Consolidated statements of Sungrow.



## Measures to Reach Energy Consumption Intensity Targets

According to the requirements of the ISO50001: 2018 standard, the Company implements online management of energy laws and regulations and other standards. In 2023, the Company revised 5 and added 3 documents on the energy management system, which make a point of updating and supplementing the energy equipment procurement review, energy review plan, energy goals and indicators, and energy plan management. In 2023, the Company launched the energy management consulting project, systematically combed through the energy management logic, conducted in-depth analysis of the current situation

of energy use, identified 15 energy performance parameters related to major energy-using equipment in new production systems and auxiliary systems, and put them under long-term monitoring.

The Company joined EP100 in 2022 and continues to achieve energy conservation and consumption reduction and to increase energy productivity by relying on both technology and management. Throughout the year 2023, over 1,300 MWh of electricity was saved, equivalent to over 159.77 tons of standard coal.

<p><b>Energy conservation through technical means</b></p>	<ul style="list-style-type: none"> <li>• The 10 air-conditioning units in M13 Workshop of Industrial Park have switched from the electrode humidification mode to the wet film humidification mode, and the annual power consumption is expected to be 600MWh less.</li> <li>• The Industrial Park M13 workshop DIP, coating, and SMT waste gas unit treatment process have been upgraded, saving annual energy consumption by 500MWh</li> <li>• The air compressor station in the Industrial Park is installed with gas storage tanks to reduce the equipment loading time, which saves annual power consumption by 200MWh.</li> <li>• Utilizing the charge and discharging functions of power conversion system, it can form a pair-dragging with the PV inverter to be tested. The inverter actively pulls the load of the power conversion system which is at no-load heat state to realize pair-dragging. Through this improvement, the energy consumption of the test process is reduced from 16% to 6%. Furthermore, this improvement is replicable, and the annual power saving can reach 3GWh.</li> <li>• The inverter is put under aging inspection, with the energy consumption in the aging inspection of a single machine reduced by 10kWh(taking the SG320HX product as an example).</li> <li>• The parallel testing mode was evaluated and improved, and the aging testing time of a single unit was reduced from the early 3H to 2.5H, saving an average of 0.5H per unit. For example, the aging testing of the SG320HX product saves 24kWh per unit.</li> <li>• The Thai factory has completed the upgrading of aging testing equipment for string inverters, which can save 103.3 MWh of power annually.</li> </ul>
<p><b>Management for energy conservation</b></p>	<ul style="list-style-type: none"> <li>• The <i>Regulations on Conservation Management</i> has been issued among all employees, and the concept of energy conservation and green office has been promoted.</li> <li>• The water and electricity subsidy offered to the catering service provider is limited, and part of the actual water and electricity expenses exceeding the subsidy is borne by the service provider who is urged to save water and electricity. Grassroots employees of the outsourcing catering team are regularly organized to participate in energy-saving and water-saving training, so as to enhance the grassroots staff's awareness of water and electricity conservation. After meals each day, the water valves and electricity switches in the front hall and the back kitchen are checked to ensure that they are turned off.</li> </ul>

### Energy conservation through management

- The *Energy Management Manual* was revised and the operation mode of the energy management system was optimized.
- The Company has launched the energy-carbon management project, and has gradually realized refined management of energy use and carbon emission through systematically sorting out the energy monitoring system, installing monitoring equipment, and building an information management platform.
- Advancing the zero-carbon park construction, Sungrow's corporate building is constructed in accordance with the two-star requirements in the *Green Building Evaluation Standards*.

## Measures to Reach the Scope 1 and Scope 2 Total Greenhouse Gas Emission Targets

On the basis of the above-mentioned energy conservation through technical means and management, in order to push the Company to continuously reduce the total amount of greenhouse gas emissions in Scope 1 and Scope 2, Sungrow has continuously increased the proportion of renewable electricity in the Company's energy consumption through self-owned photovoltaic power plants and the purchase of green electricity, aiming to achieve carbon neutrality at the operational level as soon as possible.

The company's kitchen should replace gas with electricity as much as possible, choose refrigerants with low greenhouse gas emissions, environmentally friendly switchgear and gas cabinets, and require that no more fuel vehicles be purchased in the new procurement of administrative reception vehicles. The Company has signed a strategic cooperation agreement with the power company to purchase green power from an even larger third-party power company to stabilize the cost of power. According to the Company's 2023-2027 production capacity planning, RE100 planning, and actual power consumption from January to May 2023, combined with the actual cost of electricity in 2022, the cost of purchasing green electricity in 2023 was

about CNY140 million. The growth of the operating costs due to the increase in green power prices in the next four years is expected to exceed CNY20 million per year. (Note: The data are estimated based on the assumption that starting from 2024, the transaction price of green power will increase by CNY10 / MWh per year, and the power consumption is based on the Company's shipment forecast.)

The Company has built factories and office buildings with photovoltaic power plants. In addition, the Company reduces the purchase of green power by purchasing from the Group's own photovoltaic power plants, increasing self-use of the power generated, and installing energy storage equipment to store energy during the trough period which will be used during the peak period.

In the future, the Company's ongoing phase II plant project and upcoming phase III plant project in the industrial park will have power stations built on the rooftop. Since 2023, the Company will increase the proportion of green power by an annual growth rate of 10% till 2028 when 100% of the electricity needed for production and operations is generated by renewable electricity.

## Measures to Reach the Scope 3 Total Greenhouse Gas Emission Target

In order to reduce Scope 3 greenhouse gas emissions, Sungrow has carried out carbon emission management within supply chain in terms of system construction, current status investigation, supplier training, etc., to help achieve the goal of carbon neutrality in the supply chain. In terms of institutional system construction, the Company has formulated the *Regulations on Sustainability Management of Suppliers*, requiring suppliers to conduct GHG inventory and carbon footprint accounting of product and has gradually set carbon emission reduction targets, with carbon emissions included in supplier performance evaluation. Procurement risk management procedures have been

developed to control ESG risks including climate change; the *Supplier ESG Audit Form* is developed to establish an ESG audit system covering the greenhouse gas components. And the greenhouse gas emission performance is added to the supplier portrait system.

In terms of system construction, since 2022, the Company has actively carried out supply chain carbon accounting and carbon emission data management, and built an energy management system and the SRM (Supplier Relationship Management) system, to gradually master the carbon footprint basic data of the

products' parts and components. In order to further strengthen the supplier's carbon emission data management, the Company has launched and updated SRM system, requiring suppliers to fill in the carbon-related basic data of all materials and put online their sustainable business sector in the supplier portrait system, which will continue to push the suppliers to establish a sound carbon emission data management system.

In 2023, the Company established a supply chain carbon management taskforce, which completed the collection of 34 suppliers' organizational carbon inventory data, and successfully recovered effective carbon footprint data of 35 products, which will be the basis for future work on products' carbon footprint modeling. In light of standards such as ISO14067, ISO14044 and ISO14025, the Company conducts the product's carbon footprint accounting and EPD certification to assess the climate and environmental impact of the product throughout its life cycle, 350HX series products have completed the EPD certification. Based on the carbon footprint accounting results, we will comprehensively sort out the materials that let out a relatively high proportion of emissions, and formulate a low-carbon promotion plan for such key materials. In addition, in order to comprehensively figure out the level of supplier greenhouse gas data management, the Company collected the data about suppliers' relevant performance regarding greenhouse gas emissions in the *Supplier*

*Sustainability Questionnaire*, like carbon emissions neutrality goals, carbon emission reduction goals, carbon reduction measures, carbon inventory and product carbon footprint; a total of more than 430 questionnaires were collected. According to the questionnaire survey, about 25% of the suppliers ever conducted organizational GHG inventory development; about 15% carried out product carbon footprint accounting and have corresponding greenhouse gas accounting capabilities; and about 7% of the suppliers have passed the certification by international standards related to greenhouse gas emissions. In addition, all staff buses are pure electric vehicles now. In terms of logistics and transportation, the Company prefers electric vehicles, optimizes the internal storage flow line and external logistics route, and reduces the distance of cargo transfer. Specifically, the following measures were taken: ① integrating orders for centralized shipment and reducing carbon emissions per unit product through the scale effect of transportation; ② transport vehicles are diesel vehicles or new energy vehicles that meet the latest environmental protection requirements; ③ for maritime transport the new cabin space of the ship owner is preferred. The ship that reaches the carbon emission reduction target on the premise of the delivery guaranteed is chosen, such as a ship that has a lowered main engine power, carries features of new technology transformation, and uses new energy fuel.

### Supplier Carbon Management Training

In August 2023, the Company launched online suppliers meeting themed on "Collaborating with Each Other to Realize Zero Carbon", which involved 72 representatives from 34 suppliers. The meeting focused on the training on the smart carbon platform, product carbon footprint and organizational carbon inventory data and management methods, laying the foundation for subsequent data collection.

## Measures towards water resources management objectives

The Company's water supply comes from the municipal water pipe network and the fire fighting water pipe network, which mainly goes for domestic and office use, canteen catering and fire emergency use, but does not involve industrial sewage discharge. The Company has brought in a third-party professional Company and set up a water-saving leading group to formulate water-saving development plans and water-saving

plans; improve water-saving management systems and daily water-saving management; carry out water statistics, analysis, water-saving publicity, education and business training; and to advance water-saving technology transformation, promote water-saving equipment and complete water balance testing through the third-party professional companies.

<p><b>Routine management</b></p>	<ul style="list-style-type: none"> <li>• Promoting water conservation and posting publicity terms</li> <li>• Regular publicity and training on water conservation in canteens and property, and routine assessment are conducted.</li> </ul>
<p><b>Technical level</b></p>	<ul style="list-style-type: none"> <li>• The automatic irrigation system is implemented for the greening of the Sungrow Industrial Park</li> <li>• Sungrow Building adopts sponge-like water storage design</li> <li>• Using the reclaimed water recovery system</li> <li>• Induction faucet coverage rate reaches 70%</li> <li>• Use integrated sewage treatment equipment</li> </ul>

# 04

## Eco-friendly Development

### Environmental management

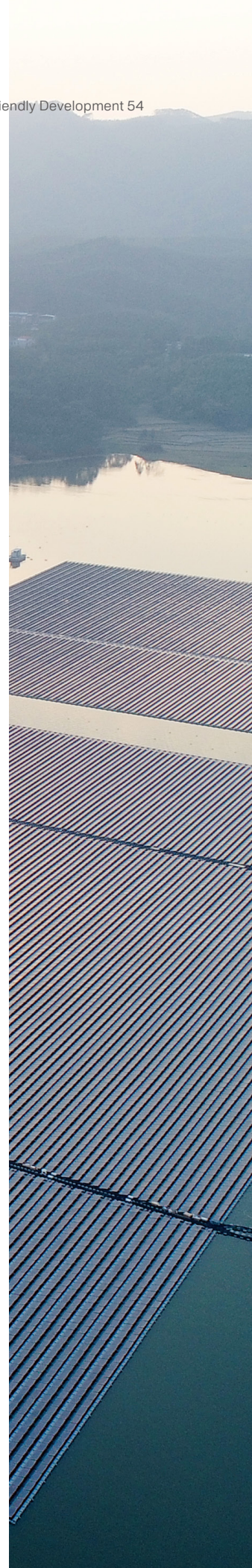
#### Environmental management systems and policies

The Company adheres to the environmental policies of “green and energy-saving, pollution prevention, cleanliness and efficiency” and has set up a management organization (namely the Work Safety Committee) comprising the Chairman and senior executives. As its executive body, the Comprehensive Safety and Environment Management Department is responsible for implementing and coordinating the Company’s environmental management and work safety. In addition, we have formulated a series of policies, including the *Environmental Policies*, the *Regulations on Pollutants-related Environmental Protection*, the *Energy-efficient Management Measures*, and the *Regulations on the Management of Worthless and Sluggish Materials*, incorporating environmental management into the Company’s various businesses, while adopting sound management strategies to fulfill its environmental responsibilities.

In an effort to promote the full coverage and perfection of its environmental management system (EMS), the Company has put in place an EMS that covers all relevant operations (including Sungrow

Power in Hefei, Sungrow FPV, Sungrow Renewables, Sungrow Hydrogen, Sungrow E-Power, Sungrow Energy Storage, India Plant, and Thailand Plant), and received the ISO14001:2015 certification for EMS. During the reporting period, there were no environmental penalties or lawsuits against the Company. In addition, the Company has been awarded a range of environmental honors, including national-level green plant, clean manufacturing enterprise, a company on the Positive List for Environmental Supervision and Law Enforcement, a municipal-level base for environmental education, and district-level outstanding organization for environmental protection.

The Company continues to invest in the field of environmental protection. In 2023, the Company invested about RMB 7.95 million in environmental protection, involving landscaping of the plants, intensified pollution control, regular testing, as well as training and education programs.



## Investment in environmental protection projects

Category	Cost (unit: RMB)	Purposes
Daily operation and maintenance	690,412	Maintain the environment in the plants through landscaping, pest control, cleaning, garbage disposal, etc.
Pollution control	5,811,662	Improve, upgrade and maintain equipment for pollution prevention and control, including the cost of the operation of exhaust gas and wastewater treatment equipment, the hazardous waste disposal, treatment facility consumables and their replacement, as well as the maintenance of pollution control facilities
Regular testing	299,219	Monitoring cost for the operation of pollution control facilities, monitoring cost for pollution discharge, etc
Technical consulting	657,802	Potential environmental hazard investigation, environmental steward services, environmental governance plans, consultations on environmental management capability improvement plan, and etc.
Training & education	428,766	Publicity, education and training expenses on environmental protection, including online education, internal training, external training, and training on statutory professional qualification certificates
Environmental emergency	64,000	Cost for leakage prevention, collection, cleaning tools and equipment of chemicals or other pollutants, and etc.

## Environmental risk management

In response to potential risks that may affect the water environment, atmospheric environment, and eco-environment, the Company is committed to minimizing the negative impact on the water, atmospheric and ecological environment by constant investment of resources and efforts. We have formulated the

*Procedures for EHS Factors' Identification, Evaluation and Control Planning* to help us regularly identify and evaluate environment risks and devise control measures, in a bid to ensure the compliance of all activities with environmental protection standards.

## Environmental audit

The Company's major operating locations are subject to Environment Management System external independent audit conducted at least once every year, coupled with irregular internal audits and evaluations, with a view toward continuous improvement of environmental performance. Regarding the identified problems in the auditing process, the relevant unit shall be notified and ordered to complete the closed-loop rectification, while being included as the focus for subsequent supervi-

sion.

Moreover, the Company has commissioned third-party agencies to conduct emission testing of wastewater, exhaust gas, and noise on a regular basis. The monitoring results have been up to national and regional standards. During the reporting period, the Company wasn't subject to any penalties related to environmental protection.



## Pollutants and waste management

The Company has reduced the generation of pollutants and waste from the source by improving technical processes and accelerating the replacement by environment-friendly materials.

Meanwhile, the latest pollution control technologies have been introduced to reinforce back-end pollution control, thereby reducing consumption and pollution.

### Effluent management

Sungrow and its subsidiaries do not involve industrial effluent discharge in the production process, only domestic wastewater discharge. The Company has contracted a qualified third-party inspection service provider to monitor the quality on a regular basis. Septic tanks are cleaned according to the agreed schedule by the public sanitation service. These efforts have been made to ensure that the Company's drainage meets the criteria

of municipal sewage treatment plants, while avoiding excess discharge. In addition, the Company prioritizes the introduction of water-saving equipment to reduce the amount of sewage generated, while launching new projects for sewage collection and treatment. The Company set a goal of reducing water consumption intensity per unit of product by 40% by 2025 compared to 2020, and the figure was 37.3% in 2023.

### Effluent discharge

Index	Unit	2023	2022	2021
Total water consumption	Ton	459,024	316,713	206,133
Water consumption intensity per unit of product	kg/kW	2.34	2.73	2.82
Total wastewater discharge	Ton	367,219	253,370	164,906
Total COD emission	Ton	59.490	43.764	37.928
COD emission intensity per unit of product	kg/GW	287	378	506
Total NH <sub>3</sub> emission	Ton	8.262	5.184	3.463
NH <sub>3</sub> -N emission intensity per unit of product	kg/GW	39.8	44.7	45.9
Total production of BOD <sub>5</sub>	Ton	26.440	17.810	18.243
BOD <sub>5</sub> emission intensity per unit of product	kg/GW	127.5	153.6	241.8
Water pollutant-related penalties	Times	0	0	0

## Exhaust gas management

The Company's gas emissions mainly include particulate matter generated in the welding process, non-methane hydrocarbons (NMHC) from the volatilization of device coating process raw materials, and the canteen oil fume. Gas emissions from production process are treated with professional waste gas treatment facilities, canteen oil fume is treated with standard oil fume purification devices. The Company contracts a qualified third-party environmental inspection service to monitor waste gas outlets, and includes gas emissions in the annual application for pollution discharge permits. In 2023, the Company transformed and optimized the exhaust gas pipeline, reducing the wind resistance-incurred loss of exhaust gas facilities by straightening the pipeline to reduce elbows and other designs, while increasing the overall collection efficiency of the exhaust gas collection system. The dust removal process for exhaust gas cleaning was upgraded, replacing the ordinary filter process with

a multi-stage efficient dust removal process to improve the filtration efficiency of exhaust gas particulate matter and reduce the emission concentration of particulate matter. The Company raised the iodine value parameter of purchased activated carbon to ensure more stable and reliable efficiency of tail gas treatment. In addition, the amount of VOC generation has been reduced by expanding the replacement of solvent-based coating materials with UV-curable coating materials. Moreover, the Company has adopted a strategy for the full collection and treatment of organic waste gas to avoid unorganized emissions.

Sungrow has set a goal of reducing the VOC emissions per unit of production capacity by 30% and the particulate matter emissions per unit of production capacity by 75% by 2025 compared to 2020, and the figures hit 46.4% and 87.1% respectively in 2023.

### Air pollutants emissions

Index	Unit	2023	2022	2021
Total emission of Particulate matter	Ton	2.673	2.853	7.345
Particulate matter emission intensity per unit of product	kg/GW	12.89	24.64	100.20
Total VOC emission	Ton	8.874	5.210	4.380
VOC emission intensity per unit of product	kg/GW	42.79	44.99	59.75
Air pollutants-related penalties	Times	0	0	0

## Waste management

Solid waste generated in Sungrow's daily operation includes raw material for packaging (plastics, cartons, wood) in the upstream stage, processing and manufacturing metals (waste wires, copper, and steel scraps), scrapped raw materials, and hazardous waste (waste chemicals, contaminants, waste circuit boards, etc.) in the midstream stage, as well as discarded end-of-life products in the downstream stage. The Company doesn't discharge harmful pollutants such as dioxins, ozone, mercury, NOx and sulfides.

The Company sorts, collects, stores and disposes industrial waste in accordance with laws and regulations. The Company also proactively works with suppliers to lower the threshold for end-of-life waste recycling and promote the comprehensive disposal of industrial waste. In 2023, the resource recycling rate of the Company's general industrial solid waste reached 60.1%, registering a year-on-year increase of 6.99%. The goal is to raise the utilization rate to 70% by 2025.

## Solid waste discharge

Index	Unit	2023	2022	2021
Total solid waste generated	Ton	3,210.48	1,967.96	1,406.02
Solid waste generated per unit of product	Ton/GW	16.16	16.97	18.63
Non-hazardous waste generated	Ton	2,757.59	1,778.49	1,362.91
Among them, Rrecyclable	Ton	1,657.31	994.18	712.80
Among them, the amount of incineration for energy recovery	Ton	898.97	642.03	530.17
Other disposal methods	Ton	201.3	142.28	119.94
Recycling rate of non-hazardous waste	%	60.1%	55.9%	52.3%
Total hazardous waste generated	Ton	452.89	189.47	43.11
Among them, the dismantling and utilization amount	Ton	124.27	19.41	4.01
Among them, the incineration volume without energy recovery	Ton	304.33	152.53	24.61
Other disposal methods	Ton	24.29	17.53	14.49
Solid waste-related penalties	Times	0	0	0

## Noise management

To provide a better work experience for employees and minimize impacts to communities in the surrounding, the Company requires that low noise variants should be prioritized during the selection of equipment. For vibrating and noise-generating equipment, vibration absorption foundations should be arranged. For noise-generating equipment, Equipment Department leverages the information system to keep an eye on the relevant information and schedule routine maintenance. In case

of exceptional situation, on-site personnel may also scan the code to report and request immediate treatment. For existing noise-generating equipment, comprehensive vibration reduction, sound insulation, sound absorption, and noise reduction measures are taken, such as adding dampers to the air duct outlets, building sound insulation enclosures, and using flexible connections.

# Sustainable products

## Product lifecycle management

The Company has paid close attention to international standards and the latest industry policies related to LCA (life cycle assessment) and carbon footprint, while engaging in the product carbon footprint accounting and certification work. Based on the accounting results and the vision of lifecycle carbon reduction, the Company identifies the products’ potential for carbon reduc-

In 2023, the Company established the independent carbon footprint accounting capability, set up a carbon footprint database of underlying materials, and collected the carbon attribute information of 2,984 material particles. According to ISO14067:2018 *Greenhouse gases—Carbon footprint of products—Requirements and guidelines for quantification*, the Company conducted the annual accounting of the carbon footprint of 1+X series products and other five models, covering all the main models.

Meanwhile, with a view to making its disclosure of environmental information more standardized and transparent, the Company

tion in multiple links, such as development and design, supply chain, production and assembly, use, and maintenance, in a bid to promote the implementation of green product design, collaborative emission reduction of supply chains, carbon reduction during production and operation, and recycling system building.

conducted LCA research targeted at SG350HX product series, with reference to international standards ISO14044: 2006 *Environmental management—Life cycle assessment—Requirements and guidelines* and ISO14025: 2006 *Environmental labels and declarations—Type III environmental declarations—Principles and procedures*, as well as EPDIItaly032 Product Category Rules. The product series have earned the EPD certification for the first time. This is also the world’s first photovoltaic inverter that has completed EPD registration and release on the Italian EPD platform.



## Localized procurement

The Company insists on localized procurement practices to effectively save energy and time in transportation, thereby reducing environmental pollution. In 2023, products and services purchased from China accounted for 99.23%.

## Green design

Sungrow steps up efforts to integrate green design into the R&D system, takes measures such as lightweighting and hazardous substance control into consideration during the stages of product development and technical research, reduces the generation of industrial solid waste through optimized designs, and promotes the recycling of renewable resources.

## A Case

### Lightweight design

Battery modules need to be bundled with steel belts. Despite high strength, the steel belts are dense and costly. Through simulation, it's found that the basalt plastic belt structure can meet the expansion force requirements of battery modules. The replacement of steel belts with basalt plastic belts could reduce the weight of a set of battery modules by at least 0.4kg.



### Hazardous substance control

The Company has received the QC080000 certification (for the design and manufacturing of grid-connected PV inverters) and incorporated RoHS, REACH, battery regulations, and packaging directives into the hazardous substances control system. The introduction process of hazardous substances is managed from dual dimensions of both supplier and material, and the control measures are not limited to agreement, on-site audit, incoming

material testing, document review, and performance appraisal. To promote the implementation of requirements on hazardous substance control stipulated in the *EU Battery Regulations* issued in 2023, we amended the *Environmental Commitment Letter* and formulated the *Supplementary Agreement to the Environmental Commitment Letter* for all suppliers to sign.

### Green logistics

The Company has gradually shifted to green transportation for logistics, sorting out orders for centralized transportation and reducing carbon emissions per unit of product through the scale effect of transportation. The Company's transportation vehicles are gasoline/diesel vehicles or new energy vehicles that meet China's stage VI emissions standard, which is consistent with the latest national requirements for environmental protection. For

sea transportation, the Company prioritizes new ship spaces or the ships that meet the goal of carbon emission reduction on the basis of ensuring delivery time, such as ships featuring lower main engine power, new technological transformation, and new energy as fuels. In addition, the Company introduced a digital logistics management system to improve the efficiency of processing logistics-related affairs.

### End-of-life disposal and recycling of products

In active response to *EU Battery Regulations*, the Company has set up a special team to respond to battery regulations. In response to the requirements on batteries' hazardous substance control, energy storage system safety and performance that will

take effect in 2024, the team has formulated countermeasures to ensure the products' compliance with regulatory requirements. At the same time, the team is preparing to carry out battery recycling program together with local institutions in the Europe.



## Biodiversity

The Company's new energy projects include photovoltaic projects, wind power projects, energy storage projects, etc., which are distributed throughout the country and overseas regions. Potential ecological impacts include soil erosion, wastewater pollution, noise pollution, fires, solid waste, biodiversity, and bird migration. The Company attaches importance to the protection of ecology and biodiversity during project development. In the process of developing and constructing new energy power stations, the Company respects, conforms to, and protects nature, strictly observes relevant global laws and regulations, proactively considers environmental impacts of its decisions and activities, and strengthen the prevention and control of hidden dangers and environmental protection throughout the production process. During the reporting period, there have been no penalties received due to the ecological impact of the project.

We have developed a sound environmental protection system

for project implementation, covering project redline map, preliminary stage, project approval and review, and start of construction. The system comprises the *Regulations on Project Approval Management*, the *Regulations on Project Review Management*, the *Regulations on Project Commencement Management*, providing guidance for dynamic project management throughout the life cycle and at key links. For site selection, the unutilized land and abandoned land are preferred, so as to achieve sustainable development of new energy projects and ecological protection through the reuse and composite utilization of uncultivated land, wasteland and other land resources. In 2023, the Company released a new version of the *Photovoltaic and Wind Power Development Manual*, clarifying the standards for project compliance inspection and fully considering the scope of prohibitive and restrictive factors, so as to pursue development in accordance with relevant policies, laws and regulations to avoid risks.

### Project site selection

Prioritize wasteland and abandoned land and verify prohibitions and restrictions in ecological environment protection, so as to identify the preliminary range of project site.

### Project initiation and review

Rule out environment-related prohibitions in project development according to preliminary documents issued by competent authorities. For environment-related restrictions, organize professional evaluations to identify a feasible implementation plan, and optimize the project property line map on such a basis. The preliminary documents issued by competent authorities mainly include the opinions of the self-regulatory department on site selection (the current status of the three surveys, planning, complex projects, ecological red lines, basic farmland, capped mines, urban and rural planning), as well as the opinions of the departments of agricultural and rural affairs, the forestry and grassland departments, the ecological and environmental protection departments, the water conservancy departments, the culture and tourism departments, the armed forces departments, and the transportation departments.

### Pre-commencement

Obtain administrative approvals, such as EIA, water-related administrative permits (water conservation, flood assessment, etc.), bird assessment, approval for using forest/grassland/wetland, and composite project approval in advance. Carry out project construction within the scope of administrative approval, and prevent potential ecological impacts. Projects that have not obtained the above documents will not commence.

### Project construction

The Company has formulated the *Management Manual—Project EHS Management*, the *Regulations on Environmental Factors Identification, Environmental Impact Assessment and Control*, and other documents to advance project planning in accordance with the Safety Design chapter. Construction is strictly controlled within the designed land acquisition boundary that is identified with fences or barricades.

In response to various potential ecological impacts, the Company had adopted targeted measures. In the meanwhile, the Company has maintained the environmental factors control log

throughout the construction process and organized inspections and acceptance tests of green construction.



### Soil and water loss

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The Company conducted design, construction and acceptance inspections in strict accordance with the approved soil and water conservation plan, ensuring that water conservation and the main project are designed, constructed and accepted simultaneously. In the meanwhile, engineering, plant, and temporary measures were developed based on the actual situation of the project, topography and geology.



### Prevention of effluent leakage

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During the middle stage, later stage, and operation and maintenance stage of the project construction, the Company set up grease traps, septic tanks, and integrated sewage treatment equipment to ensure the up-to-standard discharge of effluents generated by the project. For oil-containing main transformers, box transformers and the like, oil blocking, storage measures and general emergency oil pool should be put in place to ensure that in the event of oil seepage or leakage, the oil can be collected and transported to qualified units for treatment.



### Fire disaster

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During the project construction, fire extinguishing measures are put in place properly. During the operation and maintenance period, fire extinguishers and fire protection distances are reasonably set up for oil-containing equipment, in combination with fire alarm systems, water fire extinguishing systems, among others.



### Solid waste

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Set up hazardous waste rooms, including rooms for hazardous solid waste and for hazardous liquid waste. The concentrated solid waste is collected for centralized harmless treatment by certified organizations.



### Biodiversity and bird migration

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Before the project site is selected, a certified third-party agency should conduct a biodiversity and bird migration assessment and issue a report to ensure that the project site does not occupy or affect biodiversity and bird migration routes. The project operation site does not involve the habitats of species in the IUCN Red List and the National List of Protected Species.

In the event of conflicts with the local sides before and during the project construction, the Company appoints special personnel for negotiation and follow-up, combined with corresponding handling mechanisms. The Company actively communicates

with the local government, village committee, and villagers to resolve the conflicts step by step, meet the requirements of local villagers to the largest extent, and set up standards and measures for economic compensation.

# 05

## Mutually Beneficial Collaboration




### Customer relationship management

#### Customer relationship management system


With localized services as the core and pillared by an intelligent platform, Sungrow has developed a support system that integrates online and offline services, providing services and solutions throughout the entire product lifecycle. The

Company has stepped up efforts to increase the efficiency of service and response based on professional and quality services, so as to constantly exceed customer expectations and create greater value for customers.


#### Lifecycle services for customer

Pre-sales services 

Implement the “iron triangle model” to provide customer-centered lifecycle product management services

In-sales services 

Provide innovative services based on a global service platform and digitalize customer cases with the help of the AI platform

After-sales services 

Provide all-round services and solutions, improve service and response efficiency based on professional and quality services, and support customized customer training through a tiered international talent training system, so as to continuously exceed customer expectations and create greater value for customers



## A Case

### Excellent customer service

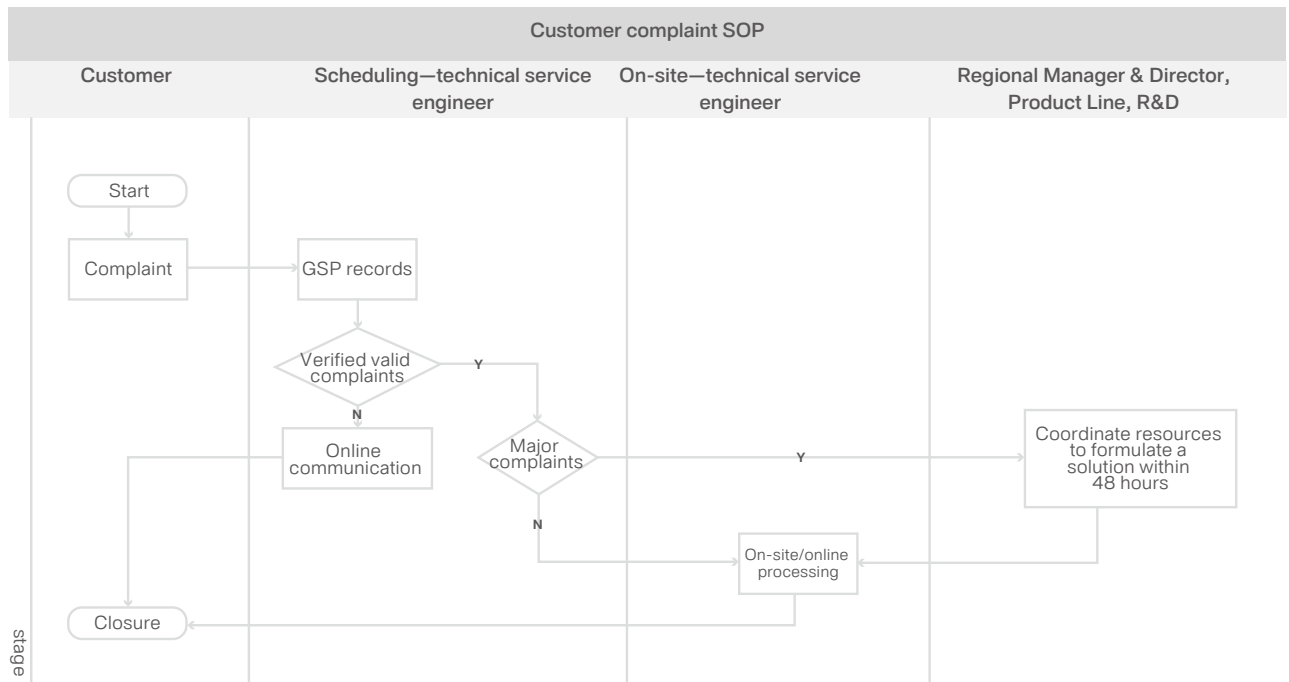
In 2023, the equipment for the 30MW PV power generation plant of Jingyi Renewable Energy in Pingquan Town, Chengde City, Hebei Province broke down. The Company's after-sale service personnel solved the problem within 24 hours, restored equipment operation, and ensured power generation. They have shown great sense of responsibility and made prompt response. The clients were impressed by their responsibility.



### Customer communication

To safeguard the rights and interests of customers, we have set up diversified channels for customer communication, including the corporate website, complaint hotline, online customer service, emails, complaint letters, cloud platforms, and interviews, combined with clarified procedures and responsible party for complaint handling. In line with the *Regulations on Customer Complaint Management*, we have put in place the mechanism and process for customer complaint response. The

process involves receiving complaints, analyzing complaints, Q&A, solving problems, and feedback. We have handled customer complaints in a multilevel and standardized approach and in the principle of "quick response, guaranteed investigation for every single complaint, timely feedback, corrective and preventive measures".



## Customer service training system

The Company has established a three-level technical support system, comprising business regions, the Global Technology Empowerment Department, and R&D. Assuming a hub role in the three-level technical support system, technical support engineers from the Global Technology Empowerment Department serve as the headquarters' service representatives to get deeply engaged in product development, advise on the installability and maintainability of new products, and provide product maintenance and training materials, thereby empowering regional technical service engineers. On the other hand, they conduct on-site and hands-on customer training to increase the competency of operation and maintenance engineers, standard-

ize safety and technical operations, and improve the capabilities for quick removal of common faults.

In addition, the Company has set up a Training and Practice Center, enabling the internally certified instructors to compile training materials on various products and operation and maintenance, targeting at difficulties of on-site product operation and maintenance, upgraded technologies for operation and maintenance, among others. Meanwhile, they provide training sessions in various forms to help improve the capabilities of the customers' operation and maintenance team. In 2023, the Company organized 389 on-site customer training sessions and 146 in-house sessions.

## Responsible marketing

Committed to responsible marketing, Sungrow has formulated standardized procedures and criteria for sales, promotion, services, and information security. In addition, an internal audit mechanism has been established to ensure the integrity and accuracy of information disclosure in the marketing process and incorporate the compliance awareness in the entire marketing process. The Company is devoted to providing customers with safe and satisfactory products and a complete set of solutions to achieve a win-win situation.

## Customer satisfaction

The Company has adopted the customer-oriented approach to keep improving customer satisfaction. In line with the relevant requirements of GB/T 19038-2009 *Guidelines for Model and Methods of Customer Satisfaction Measurement*, GB/T19039-2009 *General Rules of Customer Satisfaction Measurement*, and ISO10001—10004, the Company has optimized the process for customer complaint response and problem resolution, redesigned the questionnaire for customer satisfaction survey, opened up the GSP system, and carried out global customer satisfaction survey. In 2023, the Company organized training sessions on ISO10004:2018 Quality Management—Customer Satisfaction—Guidelines for Monitoring and Measuring, engaging a total of 940 marketing and service personnel. In addition, the GB/T27922 system was introduced to improve the internal service process, which received 5-star certification. In 2023, Sungrow's customer satisfaction rate was 93.9%.

# Product quality and safety

## Whole-process quality management

Based on the ISO9001:2015 quality management system, the Company operates differentiated industrial and product standard systems, including IATF16949:2016 quality management systems for automotive sector, IECQ-QC080000:2017 hazardous substance process management, ISO27001:2022 information security management system, ISO27701:2019 privacy information management, and ESD20.20 for ESD control. In addition, we have built a systematic, replicable and differentiated corporate management system that operates efficiently. Moreover, with reference to the ISO37301:2021 compliance management system and ISO22301:2012 business continuity management standard, The Company has identified internal operational gaps, promoted deviation improvement,

continuously improved and consolidated the operation foundation of management systems, and improve its risk response capabilities, with a view towards the Company's high-quality development. During the reporting period, there were no violations related to product quality and safety.

To ensure the applicability and effectiveness of the quality management systems, the Company has formulated the *Regulations on Internal Auditing Work* and set up a team of internal auditors to regularly conduct internal audits and evaluate the compliance of business processes. In response to any problems, the Company focuses on problem solving and risk avoidance and carry out problem-oriented reverse audits.



With the focus on product quality improvement, the Company has established a whole-process quality management system covering R&D quality, supply chain quality, process quality, and customer quality, centering on the requirements of various systems and standards. With the focus on lifecycle product realization, the Company has devised such metrics as product

failure rate, design defect rate, acceptance rate of incoming materials, process circulation rate, and pass rate of final product inspection for monthly, quarterly, and annual evaluations. There are also corrective measures for operational deviation for continuous improvement.

## Lifecycle product quality and safety management



### R&D

Based on the IPD (integrated product development) process, the Company introduced the APQP (Advanced Product Quality Planning) approach to devise new product quality management plans that are subject to targets and measurement management, and risk and problem management. Meanwhile, we started from top-level design to further strengthen risk identification capabilities and closed-loop problem management. We applied DFMEA quality tools to carry out risk identification from the early stages of product design. In 2023, we made progress in 24 special cases to ensure the quality of product research and development processes and improve product reliability. In addition, hazardous substances control, electrical safety, mechanical safety, electromagnetic compatibility and other issues are taken into consideration during the R&D process. The Company's SG75/110/125CX-P2 series have obtained IEC EN 62109-1/-2, EMC and other safety certifications, covering the requirements in the EU and other regional markets that uphold IEC standards. The PowerTitan 2.0 and ST5015HX Series have obtained UL 9540 safety certification, involving electrics, battery, thermal management and other issues and incorporating North American market requirements.



### Supply Chain

We formulated supplier management standards and supplier performance evaluation system, refined the evaluation forms for suppliers' access review, annual review, and process review, and made annual evaluation plans to conduct supplier evaluation in an orderly manner.

We established lifecycle quality management of materials. Relying on the information systems, and based on the risk thinking, we identified key processes such as device selection and certification testing, standardized delivery requirements, and implemented management and control throughout the process ranging from the evaluation of the need to introduce supplies to the performance appraisal, registering continuous improvement. Suppliers are required to sign an environmental commitment letter and upload it to the SRM system.

We built a reliability laboratory and received the CNAS certification. We achieved 100% coverage rate of production materials and monitored all the key project parameters.



### Process

Based on product characteristics and industry requirements, we introduced the *Visual Inspection Specifications for Complete Machines* and the *Finished Product Inspection Specifications for Photovoltaic Grid-connected Inverters* to effectively evaluate the product quality during the production process.

We formulated the *Management Rules for the Challenge Machinery Parts along the Production Line* and the *Three-Level Audit System Management Rules* to conduct refined control throughout the process from prevention to improvement, while increasing inspection efficiency through automation and digitization. The functional testing has been integrated, with a coverage rate of 100%. The automation rate of key processes exceeded 90%. The introduction of visual machine inspection reduced the failures in key processes to 0.

We introduced the *"Control Procedures for Non-Conforming and Suspicious Products"* to label and isolate non-conforming products, establish records of non-conforming products, and implement intelligent management and control with the help of digital systems, so as to prevent unintended use or delivery of non-conforming products.

The product safety is subject to mandatory inspection before product launch. During the production process, the electrical distance between key components must be measured. The complete product must undergo safety tests in accordance with international, national, and industry standards, such as insulation withstand voltage test, insulation resistance test, and grounding resistance test. All these measures aim to ensure that product design meets relevant safety standards and design requirements.



## Customer Quality

We introduced a series of documents and procedures, including the *8D Management Regulations*, the *Regulations on Product Malfunction (Failure) Feedback and Disposal*, and the *Product Quality Risk Control Measures*, to implement tiered management of product quality issues.

We built a QMS system and opened the transmission path with the GSP system to obtain customer feedback in a timely manner for problem-solving and analysis. Meanwhile, we implemented specialized management of key projects and key customers. In addition, we promoted closed-loop problem-solving to reduce the negative impact and customer loss incurred by quality problems, while constantly improving customer satisfaction.

## Sungrow Certification System

### Sungrow Power Supply Co., Ltd.

Accreditation	Accreditor	Accreditation	Accreditor
Quality Management System ISO 9001:2015	SGS	Privacy Information Management System ISO/IEC 27701:2019	DNV
Environmental Management System ISO 14001:2015	SGS	Laboratory Accreditation ISO/IEC 17025:2005	CNAS
Occupational Health and Safety Management System ISO 45001:2018	SGS	ESD Management System IEC61340-5-1:2016 ANSI/ESD S20.20-2021	SGS
Hazardous Substances Process Management System IECQ QC080000:2017	SGS	Greenhouse Gas Verification Statement ISO 14064-1:2018	SGS
Social Responsibility Management System SA 8000:2014	SGS	Evaluation System for After-Sales Service of Commodity GB/T 27922-2011	HXC (Beijing) Certification Center Co., Ltd.
Energy Management System ISO 50001:2018	TÜV	Green Supply Chain Accreditation GB/T 39257-2020	Shandong Zhongzi Fujian Certification Co., Ltd.
Information Security Management System ISO/IEC 27001:2013	DNV		

### Sungrow Renewables Development Co., Ltd.

Accreditation	Accreditor	Accreditation	Accreditor
Quality Management System for Engineering Construction Enterprise GB/T 19001-2016/ISO 9001:2015 GB/T 50430-2017	CQC	Occupational Health and Safety Management System GB/T 45001-2020/ISO 45001:2018	CQC
Environmental Management System GB/T 24001-2016/ISO 14001:2015	CQC		

**Sungrow Energy Storage Technology Co., Ltd.**

Accreditation	Accreditor	Accreditation	Accreditor
Quality Management System ISO 9001:2015	SGS	Energy Management System ISO50001:2018	TÜV
Environmental Management System ISO 14001:2015	SGS	Social Responsibility Management System SA8000:2014	SGS
Occupational Health and Safety Management System ISO 45001:2018	SGS	Greenhouse Gas Verification Statement ISO 14064-1:2018	SGS

**Sungrow FPV Sci.& Tech. Co., Ltd.**

Accreditation	Accreditor	Accreditation	Accreditor
Quality Management System GB/T 19001-2016/ISO 9001:2015	CQC	Hazardous Substances Process Management System IECQ QC:080000:2017	SGS
Environmental Management System GB/T 24001-2016/ISO 14001:2015	CQC	Quality Management System for Automotive Sector IATF 16949:2016	China Jiuding Automotive Supplier Certification Co., Ltd.
Occupational Health and Safety Management System GB/T 45001-2020/ISO 45001:2018	CQC		

**Hefei Sungrow E-Power Technology Co., Ltd.**

Accreditation	Accreditor	Accreditation	Accreditor
Quality Management System ISO 9001:2015	SGS	Social Responsibility Management System SA 8000:2014	SGS
Environmental Management System ISO 14001:2015	SGS	Energy Management System ISO 50001:2018	TÜV
Occupational Health and Safety Management System ISO 45001:2018	SGS	Road Vehicles Functional Safety System—ASIL-D ISO26262:2018	SGS-TÜV Saar
Quality Management System for Automotive Sector IATF 16949:2016	BV		

**Sungrow Smart O&M Technology Co., Ltd.**

Accreditation	Accreditor	Accreditation	Accreditor
Quality Management System ISO 9001:2015	SGS	Occupational Health and Safety Management System ISO 45001:2018	SGS
Environmental Management System ISO 14001:2015	SGS	Information Security Management System ISO/IEC 27001:2013	SGS

**Sungrow Hydrogen Technology Co., Ltd.**

Accreditation	Accreditor
Quality Management System ISO 9001:2015	BV
Environmental Management System GB/T 24001-2016/ISO 14001:2015	CQC

Accreditation	Accreditor
Occupational Health and Safety Management System GB/T 45001-2020/ISO 45001:2018	CQC

**Sungrow iCarbon Technology Co., Ltd.**

Accreditation	Accreditor
Quality Management System ISO 9001:2015	SGS
Environmental Management System ISO 14001:2015	SGS

Accreditation	Accreditor
Occupational Health and Safety Management System ISO 45001:2018	SGS
Information Security Management System ISO 27001:2013	DNV

**SUNGROW DEVELOPERS INDIA PRIVATE LIMITED**

Accreditation	Accreditor
Quality Management System ISO 9001:2015	SGS
Environmental Management System ISO 14001:2015	SGS

Accreditation	Accreditor
Greenhouse Gas Verification Statement ISO 14064-1:2018	SGS

**SUNGROW DEVELOPERS THAILAND CO., LTD.**

Accreditation	Accreditor
Quality Management System ISO 9001:2015	SGS
Environmental Management System ISO 14001:2015	SGS

Accreditation	Accreditor
Greenhouse Gas Verification Statement ISO 14064-1:2018	SGS

**Quality culture**

The Company is committed to developing a quality culture that takes root deep inside of all staff and values zero defect. Based on the survey results on the needs for capability improvement, we have made plans for the internal and external training on quality management, covering all employees and the whole process, combined with regular updates. During the reporting period, we have provided 178 training courses on quality management, engaging 3,847 employees for a total of 6,164.65 training hours. For years in a row, the Company has organized activities to award rationalization proposals, improvement

proposals, and excellent quality, as well as the Quality Month program, with a view to creating a culture for everyone to value and care about quality.

In 2023 we devised plans for the improvement of training programs and activities on quality culture with reference to ISO 10010:2022 Quality Management—Guidance to Understand, Evaluate and Improve Organizational Quality Culture. The Company has implemented benchmarking management, conducted cross-industry comparisons, and organized all the

staff to engage in the activities for industrial quality innovation and improvement. Furthermore, the annual quality conference was held to discuss improvement strategies and share optimal

practices , so as to develop a top-down and bottom-up quality culture.

### Digital quality management

With a view toward digital quality management, the Company has independently developed the IQP (intelligent quality platform), set up a database of quality knowledge, connected all links of customer quality, supply chain quality and process quality, established the early warning mechanism of major quality risk, and monitored the key issues in closed loop. Meanwhile, we

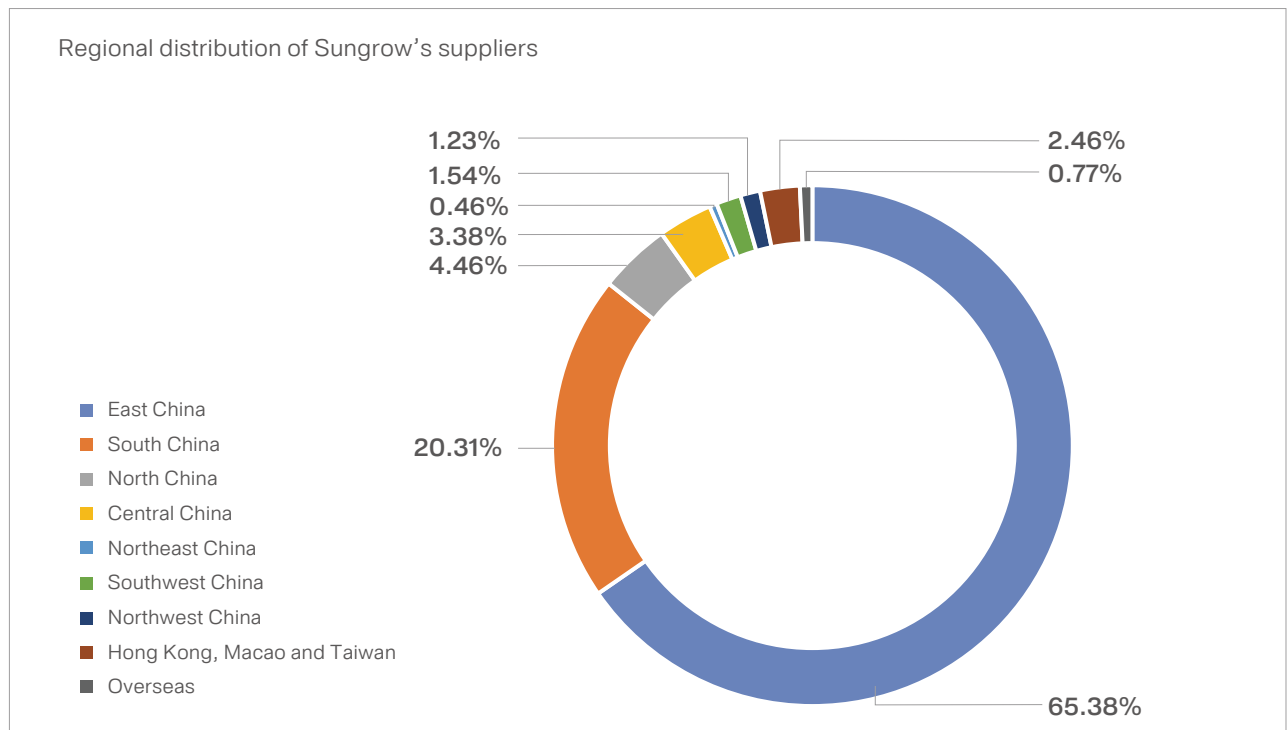
realized the overall summary and monitoring of all indicators of quality targets, coupled with early warning of abnormal indicators. In this way, the real-time, multi-dimensional and comprehensive monitoring of the quality performance throughout the entire process has been materialized.

## Sustainable supply chain

### Supplier management system

A well-developed supply chain management system is a solid pillar for Sungrow’s sustainable development. The Company has established efficient two-way communication channels with suppliers and kept a close eye on the compliance and sustainability of supply chain management.

As of 31 December 2023, Sungrow has a total of 650 suppliers. Given such factors as supply risk and procurement proportion, we categorized suppliers into strategic suppliers, bottleneck suppliers, leverage suppliers, and general suppliers.



In terms of organizational structure, the Company has set up a dedicated supplier management group to coordinate relevant matters and report the relevant work progress and plans to the procurement center every six months. The supreme regulatory body for supplier management is the board of directors and the president.

To further improve its supplier management system, the Company has introduced a series of internal control systems, including the *Supplier Management Procedures*, the *Regulations on Supplier Development*, the *Regulations on Supplier Performance Management*, the *Regulations on Suppliers' Sustainable Development*, the *Regulations on Communication with Suppliers*, the *Code of Conduct for Suppliers*, and the *Supply Agreement*. In addition, the Company has established rigorous and standardized management processes for various links, including supplier sourcing, supplier admission and elimination, supplier performance evaluation, and supplier communication, in a bid to ensure the closed-loop supply chain management throughout the process.

Moreover, the Company formulated the *Regulations on Suppliers' Sustainable Development* to incorporate ESG management and on-site audits, due diligence management of the mineral

supply chain, supply chain visibility management (including traceability, supply chain mapping, etc.), green supply chain, and carbon management into the scope of supplier management. In addition, the Company has further improved the systems for specific risk assessment and performance evaluation regarding the suppliers' sustainable development. In 2023, in response to the company's sustainable development strategy, sustainable supply chain strategic goals will be formulated, involving supplier ESG audit, supply chain carbon management, supply chain compliance, and other work.

In response to the urgent need for digital transformation of supply chain management amid the rapid business growth, the Company has established a digital management system based on the collaboration among multiple platforms, including SAP, SRM, PLM, and MDM, so as to significantly improve the efficiency of supply chain management. During the reporting period, the system was adopted for data analysis, real-time monitoring, and difference tracking, which made it possible to promptly identify problems and risks in various fields, while conducting real-time tracking and closing the loop simultaneously. In this way, the supply chain management has been notably improved.

## Supplier ESG Management

Sungrow integrates ESG into the lifecycle management of suppliers and continues to increase the suppliers' ESG manage-

ment capabilities by promoting integrity, ESG audit and capacity building, and management of conflict minerals.

### Supplier ESG audit

The Company actively carries out ESG audits, involving new suppliers of key materials in the entry stage and key cooperative suppliers in pilot audits. The contents of such audits include labor rights, health and safety, environmental protection, ethics, and management systems.

In 2023, 33 suppliers were audited on-site and all the audited suppliers have submitted ESG rectification plans. By the end of 2023, the audited suppliers had completed 73% of the rectification plans, with the remaining non-conformities under control. We have been pushing ahead with the suppliers' rectification. At the end of 2023, a third-party certification body was introduced to further comb through the ESG audit standards, in preparation for the upgrade of the standards. Afterwards, we will provide training on internal auditors and suppliers.

### Supplier ESG capability building

To help suppliers improve their capabilities for sustainable development and risk prevention and control, Sungrow regularly organizes ESG capacity-building activities for suppliers, including ESG training programs, partner conferences, carbon management training programs, and experience-sharing seminars. Through such activities, we introduced the Company's progress in supply chain ESG, plans for carbon reduction in supply chains, ESG concepts, and practices in material topics. In 2023, suppliers participated in 398 hours of ESG training.

## Supplier risk management

Supply chain risk assessment constitutes a critical link in Sungrow's supply chain management. Based on the categories

of procurement risks and the relevant departments, the Procurement Strategy Department shall set up a risk assessment team,



formulate a standardized online+offline management process, and establish a "Procurement Risk Assessment and Control Process" in the OA system. Based on the categories of procurement risks and the relevant departments, the Procurement Strategy Department shall set up a risk assessment team to conduct a comprehensive risk assessment in terms of severity and urgency.

Meanwhile, the Company has taken steps to enhance the visibility and transparency of the supply chain. In 2023 the Company required material producers and suppliers to provide a certificate of origin, with a collection rate of 100%. After investigation, no

high-risk production area was found. We carried out supply chain graph information collection for key categories, and gathered supply chain mapping information on three key categories of products. In addition, we made plans to conduct risk level assessments, complete the visualization of the supply chain risk mapping, and incorporate more categories into the supply chain mapping work in 2024. In addition, a supply chain traceability simulation drill was conducted in 2023 to understand the traceability capabilities of suppliers, identify high-risk points, and take corresponding risk control measures.

## Supplier due diligence

The Company conducts compliance due diligence on supply chain risks and completed due diligence on over 500 suppliers in 2023. All risks are controlled and tracked through the "Procure-

ment Risk Assessment and Control process". In the next step, we will expand the scope and categories of risk screening and present the results in a templated due diligence report.

## Conflict minerals management

Tantalum, tin, tungsten, gold, and cobalt play an essential role in electronic products. Sungrow does not directly purchase minerals and requests suppliers not to use conflict minerals. The Company has included the prohibition of the use of conflict minerals into the scope of CMRT (Conflict Minerals Reporting Template) and EMRT survey as required in the *Regulations on Sustainable Development Management*. In 2023, the key material suppliers completed self-assessment, and no violation of conflict minerals regulation in the supply chain was reported. Suppliers are required to sign the *Supplier Code of Conduct* and the *Supply Agreement*, making commitments on the compliance

of conflict minerals, and prohibiting the use of conflict minerals. The Company intends to require suppliers to sign the Responsible Minerals Pledge in 2024. In addition, the Company includes conflict minerals in the ESG audit scope, and conducts audits on suppliers, hence pushing conflict minerals investigation upstream and making sure minerals from conflict-affected and high-risk areas are not used in products, directly or indirectly. The suppliers of items (such as batteries, capacitors, etc.) that may involve conflict minerals will be included in the scope of ESG audits. In the future, we will continue to conduct on-site ESG audits in collaboration with third-party professional agencies.

## Supplier compliance construction

The Company requires suppliers to sign the *Integrity Pact* and the *Supplier Code of Conduct* during the supplier admission stage. During the reporting period, 100% of suppliers signed the *Integrity Pact* and 96.79% of suppliers signed the *Supplier Code of Conduct*. In addition, we have formulated the *Regulations on Supplier Blacklist Management* to strengthen the punishment of suppliers' breach of contract and dishonesty, prevent commer-

cial bribery and malicious fraud, and standardize the honest behavior of personnel at all levels. For suppliers involved in corruption or bribery, the Company implements differentiated management based on the severity of their consequences and adopts different disciplinary measures. At the same time, the Company delivers the *Notice for Suppliers* to suppliers every year to publicize the Company's anti-corruption policies.

# 06

## Diversity and Inclusion

### Employee rights and interests

#### Human rights protection

Sungrow is committed to respecting and upholding the human rights of all employees, regardless of race, skin color, religion, gender, sexual orientation, age, disability, nationality, or other identity characteristics. The Company has formulated the *Sungrow Social Responsibility Management Manual*, *Procedures for Prohibition of Forced Labor*, the *Procedures for the Management of Child Labor and Underage Labor*, the *Procedures for the Prohibition of Discrimination*, the *Harassment and Punitive Measures*, the *Management Procedures for the Social Responsibility Assessment*, and other management documents, in a bid to safeguard the employees' fundamental rights and interests.

In 2023, the Company unveiled the *Human Rights Policy* in accordance with the *Labor Law of the People's Republic of China*, the *Civil Code of the People's Republic of China*, and the *Personal Information Protection Law of the People's Republic of China*, while drawing reference from the United Nations International Charter of Human Rights, including the *Universal Declaration of Human Rights*, the *International Covenant on Civil and Political Rights*, and SA8000 standards, among others. The *Human Rights Policy* includes contents on the prohibition of child labor and forced labor,

anti-discrimination, free association and collective bargaining, working hours, and employee health and safety, involving all employees (including part-time, outsourced, interns) and the entire business operation process. We also require our suppliers, partners and other stakeholders to proactively observe the Policy.

The Company has received the SA8000 certification and conducts two external audits and one internal audit every year, covering all terms of the SA8000 system. The company regularly conducts human rights risk assessments, covering all employees and contractors, and continuously reduces human rights risks by strengthening compliance management throughout the entire process of employee recruitment, employment, and resignation. Since the establishment of the company, there have been no incidents of using child labor, forced labor, or other violations of labor regulations in the operating area.



At the same time, the Company carries out social responsibility-related training and assessments for all employees, so as to ensure that employees understand relevant systems to safeguard their rights and interests. In 2023, the Company provided six social responsibility courses on the Sungrow e-learning platform, covering free choice of employment, salary and benefits, working hours, management of child labor and

underage labor, and forced labor. An average of over 500 employees took the courses. In addition, the Company invited a third-party organization to conduct SA8000 internal auditor training, and about 40 employees obtained the SA8000 internal auditor qualification certificates. Furthermore, all employees were tested for the social responsibility system management documents in 2023.

## Employee communication

The Company is committed to building an open, transparent and democratic communication mechanism and respecting employees' rights like freedom of association. By virtue of trade union, workers' congress, signing of collective contracts, Sungrow comments book, and other channels, we have set up a diversified democratic communication platform for employees, in a bid to encourage employees to exercise their right to freedom of

speech and voicing their opinions, while ensuring constructive dialogue and cooperation within the Company. The Company respects employees' rights to freedom of association and collective bargaining, and plans to convene a meeting in July 2024 to discuss the selection of talents with production skills and the cultural development.

## Trade union operation

Sungrow continued to improve its trade union organization and management in 2023. Towards the goal of continuously improving employees' experience and sense of happiness, the Company further diversified its welfare mechanism, stepped up an open and inclusive workplace environment, and launched a variety of innovative activities. Meanwhile, we have listened to the comments of employees, continued to improve employee

communication and feedback mechanisms, held regular workers' congress and trade union members' representative conferences, responded to employees' confusions with satisfactory solutions in a timely manner, and regularly signed collective agreements. The proportion of employees protected by collective agreements in the company is 100%.

### Responsibilities of the trade union

- Safeguard the legitimate interests of employees and care about their lives
- Represent and organize employees to conduct democratic management of the Company and exercise democratic rights in accordance with the law
- Mobilize and organize employees to actively participate in the transformation of the Company
- Educate and help employees comprehensively improve their

ideological, moral, sci-tech, cultural qualities and labor skills

Organize employees to take an active part in the cultural and

- ideological development of the Company

Mediate and coordinate relations between labor and

- management

Implement relevant instructions and decisions of superior

- trade unions and the Company

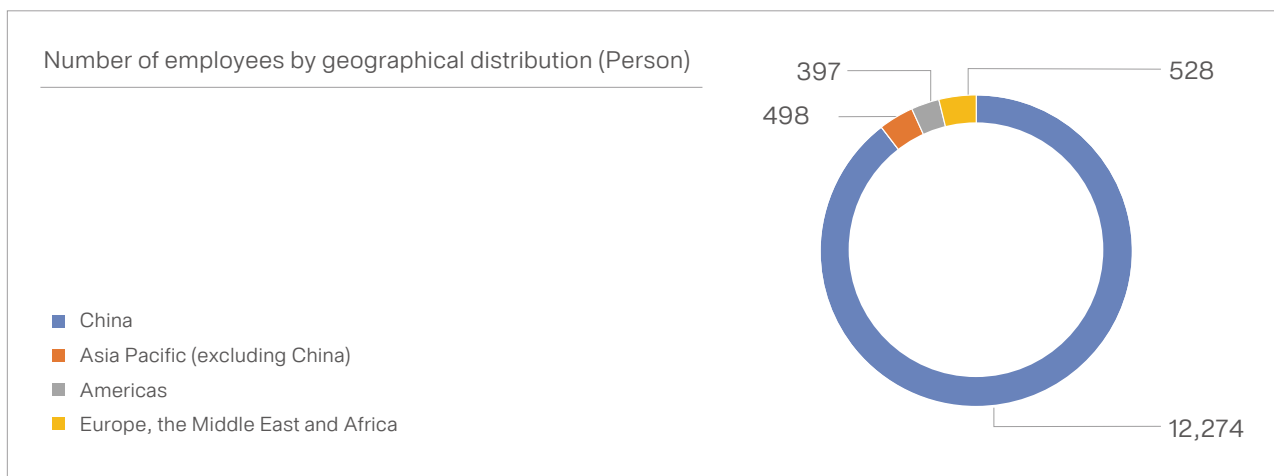
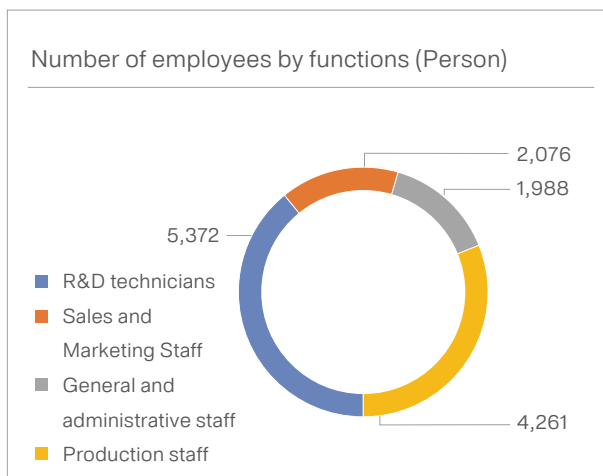
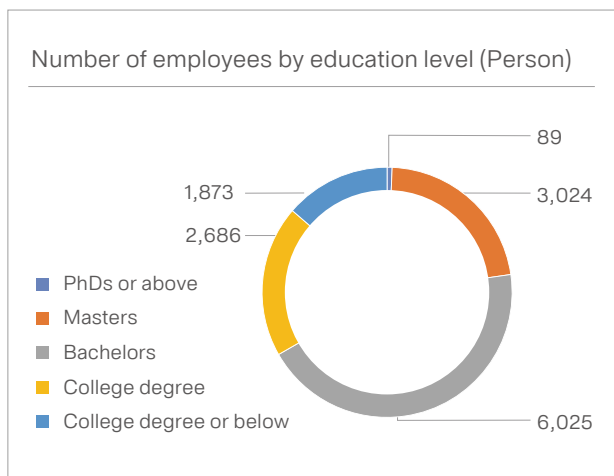
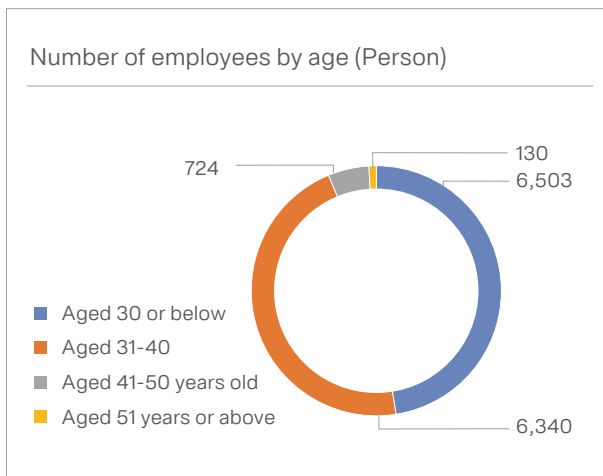
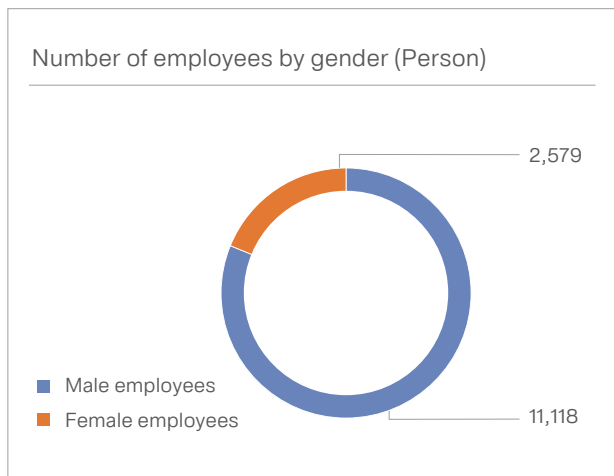
## Diversity, equality and inclusion

Sungrow is committed to building a diverse, equal and inclusive work environment to promote innovation, enhance teamwork, and make sure to give full play to each employee's potential. The Human Resources Center regularly reviews the Company's work in diversity on a yearly basis, by such metrics as geographical distribution and length of service, and then reports to the chairman. The Company has formulated DEI policies, involving

recruitment, promotion, training and development, working environment, and cultural activities, while ensuring that such policies cover all employees (including part-time and outsourced workers and interns) and the entire process of business operations. We also require suppliers, partners and other stakeholders to proactively comply with the policies.

During the reporting period, the staff has shown a general trend of diversified development, with female employees accounting for 18.82%, female managers for 15.7%, along with 1,287 foreign

employees and 269 employees of ethnic minorities. The Company's staff structure is shown as follows.



# Recruitment

The Company has formulated formal talent pipeline development strategy and adopted the strategy of attracting the best talents to meet the core business needs and establish a sustainable talent acquisition ecosystem. The Company's human resource development follows "the guidance of corporate strategy, sticks to the values, centers on talents, and focuses on motivation". The Company has formulated the *Regulations on Recruitment and Employment* to improve the forward-looking, scientific and effective talent recruitment and selection, bring in more

outstanding talents, and ensure the smooth and effective progress of recruitment.

Based on the Company's 3 to 5-year strategic planning and goals, the Human Resources Center has made plans accordingly for the recruitment of outstanding reserve talents and investment of strategic resources. Meanwhile, each business department/center lists the talents in need at the beginning of each year based on its own business plans and goals for the year.

## Recruitment principles



### Merit-based recruitment

We recruit personnel who identify with the Company's values, meet job skill requirements, and stand out in terms of overall qualities.



### Objectivity and fairness

We treat every applicant objectively, fairly, and friendly. We strive to remove all barriers to equal opportunities, and ensure that recruitment and promotion opportunities are fair and transparent.



### Interview avoidance

The interviewers shall avoid interviewing applicants who are their relatives, classmates, friends or former colleagues.



### Anti-discrimination

The Company resolutely resists discriminative, exclusive, restrictive, or preferential behaviors, speeches and written contents based on race, color, gender, age, language, religion, and ethnicity.

Based on the job vacancy, the Human Resources Center selects appropriate recruitment methods and publishes recruitment information through appropriate channels, including but not limited to the Internet, headhunting, job fairs, internal employee recommendations, and retention of dispatched personnel. To develop a dynamic internal talent supply chain, and provide

employees with diversified development paths, the Company has formulated the *Employee Turnover Management Measures*. In 2023, the Company recruited 183 personnel through internal recruitment, accounting for 4% of the annual recruitment.

## Principles for internal recruitment



### Principle of person-job matching

Employees who transfer to new positions must meet the qualification requirements for the new post and prove to be a good match for the post.



### Principle of fairness and justice

The process of employee mobility must be fair, just and reasonable.



### Principle of talent development

Employee mobility should give full play to employees' expertise and potential, provide employees with diverse development opportunities, and promote employee growth and career development.

## A Case

### International management trainee program

In response to the Company’s international development strategy, the international management trainee program draws on the experience of recruiting and training management trainees over the past five years, focuses on the recruitment and training of high-end talents, and provides diversified management talents committed to sustained and effective business growth and increasing organizational efficiency. It focuses on electrical and functional talents. The offline presentations have been successfully delivered at Peking University, Tsinghua University, Renmin University of China, Fudan University, Shanghai Jiao Tong University, and Nanjing University, which have attracted over 1,000 resumes. In addition, the innovative AI application for interviews in English has improved efficiency significantly.



## Employee training and development

### Employee training

The Company has upheld the value of “accelerating employees growth and fulfilling employees dreams” to empower employees in a continuous, systematic and scientific manner. A three-tier training structure, comprising “group training on leadership/new employees/general abilities + business departments training on professional skills + departmental training on job skills”, has been set up to improve the employees’ professional skills and qualities thereby better aligning the employees’ growth with the

Company’s strategic goals. In addition, the Company has also formulated a series of documents, including the *Regulations on Training Management*, the *Regulations on Internal Trainer Management*, and the *Regulations on Newly Recruited Instructors*, and the *Management Rules for the Learning Committee* in a bid to standardize the training process, promote talent development, and improve organizational capabilities.

### Three-tier training structure

Training structure	Category	Main contents	Targeted employees
Tier 1	Leadership development	Leadership of executives/middle-level managers and their backup; (Set-sail program for middle-level managers, the advanced leadership program, and upgraded leadership program)	Middle and senior managers
		Management skills of front-line managers/high-potentials and their backup (Programs like the Management Start Line, the Quick Transition Program, and the Management Acceleration)	Junior managers
	Instructions for new employees	General training for new hires recruited openly/from campus (Light Chaser Program, Sunflower Program)	All new employees (including part-time workers and contractors)
	General ability improvement	General capability training, including English fluency, speech delivery, cross-cultural ability, etc. (Fluent English Program, Going Global Program, Winning Speeches)	All employees (including part-time workers and contractors)
	Universal course development	Corporate-level universal course development, such as internal trainer projects, human resources management and other related courses	All employees (including part-time workers and contractors)



Training structure	Category	Main contents	Targeted employees
Tier 2	Professional ability improvement	Special training, learning plans, and workshops oriented to improve the professional capabilities of the business department  Various training activities for various business departments	All employees (including part-time workers and contractors)
Tier 3	Job skills improvement	Training on system compliance: production safety, safety design, occupational health, special operations, etc.  Job skills and knowledge training  Job skills training for new employees	All employees (including part-time workers and contractors)

In 2023, the Company made full use of online learning platforms, integrated and promoted various online and offline learning resources, and carried out diversified training programs. The Company invested CNY 20.54 million in training, up by 37% year on year, delivering a 100% coverage rate of training. The total annual training time reached 1,309,150 hours, and the average training time per person was 90 hours, up by more than 200% compared with 2022, with the training coverage rate at 100%. The Company conducted training programs through its online

Sungrow e-learning platform. The number of people logging into the platform increased by 45% year-on-year, and the number of people participating in the training program increased by 50%, and the total learning time reached nearly 600,000 hours. At the same time, the Sungrow e-learning platform has accumulated massive high-quality course resources, of which more than 1,900 new courses were launched this year, up by 22% year on year.

Percentage of trained employees by gender(%)	2023	Average training hours by gender (Hour)	2023
Male employees	100%	Male employees	44.5
Female employees	100%	Female employees	48.8

Note: The average training duration by gender is only counted for online learning duration, and future plans are to count all forms of training duration.

## Leadership development

The Company attaches great importance to the training and development of managers. The Company has continued to improve the manager training system, launching specialized and systematic training programs for all types of managers. For example, there is the Starting-line Management Program for reserve managers, Quick Transition Program for new managers, Management Acceleration Program for outstanding managers, as well as Set-sail Program, the Advanced Leadership Program, and Upgraded Leadership Program for middle and senior management. All these efforts aim to help managers improve their leadership. In addition, the Sungrow Business School is set up to concentrate on the training and development of executives, in a bid to help them develop strategic insights and improve their capabilities for business management, innovation and team management. The HR Center undertakes the project of management capacity improvement for junior managers, in a bid to help them grow from personal contributors into team managers to promote business growth. Meanwhile, the Company provides

more than 300 leadership-related training courses for all employees on the online learning platform, including *Understanding the Managers' Roles*, *18 Lectures on the Drucker's Management Theory*, and *Coaching Leadership*. In 2023, the Company won the CSTD (Chinese Society for Talent Development) Silver Award for National Corporate Learning Project Design and the 2023 SHL Award for Talent Management Practice.



Number of people engaged in the leadership training programs (Person)



Average training hours of leadership training programs (Hour)



### Professional ability improvement

The Company is committed to improving the professional capabilities of its employees. To this end, we have built and continuously optimized the competency model for each position. Building on the model, we have continued to improve the learning map for each position and provide position-tailored programs for professional ability improvement. For instance, we designed the “Project Manager Practical Training Camp” to improve the project management capabilities of project manag-

ers and the “TRIZ Innovation Empowerment Training Camp” to enhance the innovation capabilities of R&D personnel, so as to facilitate employee growth and development.

Moreover, the Company encourages employees to improve their professional abilities by studying for certification, providing them with the professional courses for the exam and reimbursement of the expenses for those passing the exam.

### Learning committee

The Company has set up a learning committee to increase its organizational capabilities, build a learning-oriented organization, create a learning atmosphere, and give full play to the driving force of learning in promoting the sound corporate development and business growth. The learning committee is responsible for creating a learning atmosphere, sharing resourc-

es, and enhancing empowerment. In the meanwhile, through a series of operation and empowering activities, the Company fully stimulates the vitality of the learning committee, mobilizes its enthusiasm, and promotes the implementation of learning and training programs in various departments.

## Employee development

The Company attaches great importance to employee growth and development. To this end, we have formulated the *Regulations on Employee Qualification Management* and offered dual channels (management and professional) for career development. The Company organizes employee qualification certification on a yearly basis to motivate employees to keep improving their professional knowledge, skills and experience. In 2023, among a total of 2,073 employees eligible for the qualification certification, 1,653 were promoted after review, accounting for 80%. The certification results shall serve as a reference for

employee promotion, salary and benefits.

To better guide talent development and improve employee promotion experience, the Company worked with external consulting agencies to upgrade the rank and qualification management system in 2023. To meet the needs of business development, we further expanded the job grades, refined the qualification standards for each position, and strengthened the application of salary related to job grades and qualification, so as to further facilitate career development of employees.

## Performance management

The Company conducts regular performance appraisals of all employees in line with the *Regulations on Organizational Performance Management* and the *Regulations on Employee Performance Management*. The appraisal evaluates the employees’ performance and contributions in an objective and fair manner from three aspects, namely performance goals, management goals, as well as values and behaviors. The appraisal results serve as an important reference for deciding the performance

bonus, salary, promotion, annual evaluation, and position transfer of employees. During the reporting period, the Company revised the *Detailed Rules on the Overseas Employee Performance Management* to encourage overseas businesses to devise performance management rules suited to actual local conditions based on business management needs, further refine and build overseas performance management processes, and improve the performance management mechanism.

## Performance management system



### Performance appraisal methods and dimensions

We adopt diversified methods for performance management. The balanced scorecard (BSC) is used mainly for organizational performance management. The KPI (key performance indicators) and PBC (personal performance commitment) are mainly used in the performance management of functional and business positions. In addition, the OKR (objectives and key results) was piloted for R&D-oriented, innovative, market-oriented and forward-looking positions. The 360° evaluation was launched for the management. In this way, the Company has made the performance evaluation for all employees more diverse, applicable and scientific.



### Performance feedback mechanism

In all stages of performance management (including formulation of performance plan, performance implementation and coaching, performance evaluation and feedback, performance improvement and grievances), the Company encourages managers to provide performance feedback to subordinate members in a timely manner through formal or informal interviews, so that employees could know their performance and need for improvement in a timely manner, which will facilitate employees' career development.



### Grievance mechanism for performance appraisal

Should there be any objection to the performance appraisal results, the employees could resolve it through communication with their superiors within three working days of learning the results. Or they could submit a written/process appeal to the leader in charge or the Human Resources Center. The Human Resources Center will conduct investigation afterwards and reply within seven working days.

## Employee performance grievance

1



The claimant shall lodge a complaint within 3 working days after learning the performance appraisal results of the current period, providing objective factual basis for disapproval of the performance appraisal results;

2



According to the performance grievance procedures, it will be handled step by step by the immediate superior/supervisor, leader in charge/HRBP, and the audit and supervision department;

3



The *Employee Performance Grievance Form* is used to record the employee performance grievance process. It should be made in triplicate. The original copy will be filed in the Human Resources Center for archiving. One copy should be given to the claimant and one copy should be submitted to the claimant's immediate superior.

## Support employee education and development

In line with the *Regulations on Training Management*, the Company supports employees to participate in continuing education, including diploma programs in colleges and universities that will issue nationally recognized masters' degree or above and the programs that facilitate the Company's business development and personal career development. Such programs could be in management or professional capabilities, covering all employees. Meanwhile, the Company encourages employees to partici-

pate in continuing education at domestic and foreign universities. To this end, an *Interest-Free Loan for Employees* was introduced, enabling employees to apply for loans for personal continuing education. For qualified employees, the Company will fully reimburse the tuition fees for continuing education without signing any service agreements, in full support of employee growth and development. The Company provided a continuing education fund of RMB 3.29 million in 2023.

## Engagement survey

Sungrow has conducted organizational engagement survey for 13 years in a row to collect information about employees' satisfaction and sense of belonging to the Company. Starting from 2021, the Company incorporated the Sungrow Organizational Capability Model into the research framework, along with survey questions related to organizational capability assessment, so as to diagnose the organization from 25 metrics under four categories of leadership, structure, employees, and processes. Meanwhile, employee engagement survey is also conducted to understand their recognition and commitment to the Company, thereby providing reference for corporate management.

The 2023 employee engagement survey covers all employees, engaging 11,094 participants and delivering a participation rate of 81%. The overall engagement score was 4.28, up by 0.03

compared with 2022. According to Gallup Q12 Engagement Ladder Model, improvement has been made in terms of "my acquisition" (being equipped with the necessary materials and equipment for work and understanding the job requirements), "my sense of belonging" (having good friends in the workplace; colleagues focusing on quality of work; my work responsibilities makes me feel the significance of my work; my opinions are valued), and "growing together" (having opportunities for learning and development; discussion about my progress over the past six months).

Based on the 2023 annual survey results, the Company made plans to enhance team management capabilities, improve innovative management mechanisms, and empower employees for sustained career development.

## Fair remuneration and benefits

### Remuneration policy

With market pay as reference and in the principles of "remuneration based on position, capability, and performance", the Company has established a value evaluation mechanism that is performance-oriented as well as capability- and position-based, coupled with a value distribution mechanism to reward unremitting value contributors. We have formulated policies such as the *Regulations on Remuneration and Benefits and the Implementation Rules for Overseas Remuneration Management*. In principle of equal pay for equal work, we are committed to providing equally competitive salary and benefits to global employees of different nationalities, ethnicities, ages, genders, and religions, while prohibiting discrimination treatment of employees due to non-work factors. The minimum wage in each region is higher than the local standards.

The Company has introduced and improved the *Regulations on Merit Pay*, incorporating a strong performance-based incentive

pay structure that covers 100% employees. The merit pay for R&D personnel is tied to the quality, progress, cost, and other factors of R&D. The merit pay for marketing personnel is tied to the sales revenue, profit and other factors. The merit pay for front-line production personnel is associated with production efficiency, quality, and others. The merit pay for functional departments is linked with the Company's overall performance and departmental performance. Based on the organizational performance and employee performance, employees in each department are motivated to pay attention to and strive to achieve the Company's development goals at each stage, thereby promoting the common development of the Company and employees. During the reporting period, the Company released the updated *Detailed Rules on Remunerations, Benefits and Subsidies for Globally Stationed Employees*, in a bid to motivate talents for in-depth business globalization.

### Stock incentives for employees

The Company has launched restrictive stock incentive plans for managers, core and backbone employees at all levels around the world, with a view to further improving the long-term incentive mechanism, and attracting, motivating and retaining outstanding talents.

During the reporting period, the following incentive plans were approved at the shareholders' meeting.

On 24 April 2023, the Company's board of directors reviewed and approved the *Proposal on Granting Reserved Restricted*

*Stocks to Those Entitled to the 2022 Restricted Stock Incentive Plan*, granting 30 employees with 320,000 reserved Class II restricted shares, with a lock-up period of 36 months.

On 12 December 2023, the Company's board of directors reviewed and approved the *Proposal on the First Grant of Restricted Stocks as Incentives*, deciding to grant partial restrictive stocks for the first time on 22 December 2023. On the day, 10.375 million Class II restricted stocks were granted to 518 employees, with a lock-up period of 48 months.

## Employee benefits

Sungrow provides competitive wages to its global employees, coupled with paid leave, medical leave, supplementary medical insurance plans/pension insurance, health care benefits and other benefits in accordance with local laws and regulations. Meanwhile, the Company has continued to improve its employee

welfare and security system, providing all employees with fair, diverse, and competitive benefits in addition to salary, including flexible working hours, diverse interest clubs, fitness and reading places, and additional holiday benefits, so as to improve the employees' sense of happiness in an all-round way.

### Diversified employee benefits

Type	Contents
Social insurance	In line with the national labor laws and regulations, the Company purchases social insurance plans for all employees, including pension insurance, medical insurance, unemployment insurance, work-related injury insurance). In accordance with local laws, the Company also provides dental/ophthalmic/disability insurances, insurances for employees and their family members, 401K plan, and supplementary pension plans. The pension and other retirement plans cover 100% employees.
Health care	The Company provides supplementary commercial medical insurance to benefit employees' spouses and children. Annual physical examinations are arranged for all employees every year. In 2023, the Company further enriched the scope of physical examination to better ensure the health of employees. The company also regularly invites senior experts to give lectures on health, organizes medical consultations, and provides employees with quality courses and consulting services on physical and mental health, involving disease prevention and treatment, stress management, and psychological counseling.
Housing benefits	Based on actual local conditions around the world, the Company provides housing-related benefits for employees, including employee dormitories, rental subsidies, settlement subsidies, interest-free loans for home purchases, one-time relocation subsidies, and home office subsidies, in a bid to ensure housing security for employees.
Holiday & birthday benefits	The company provides benefits on important occasions, such as statutory holidays in various countries, public holidays (including Eid al-Fitr, Women's Day, Christmas, etc.), birthday, weddings, and childbirths. Based on actual local conditions, birthday parties and holiday welfare activities are organized for employees.
Livelihood welfare	The Company provides its employees worldwide with subsidies for catering, communication and team building, in addition to free office supplies like coffee, fruit, snacks, and gym equipment. Based on local conditions, employees are provided with transportation subsidies, multi-line shuttle buses, parking lots and other commuting benefits.
International business trip insurance	The Company provides all-round guarantee for employees traveling across borders /posted abroad, including international business trip insurance, covering accidental injury, accident/disease medical treatment, loss of personal property, emergency rescue, life insurance, etc.
Overseas business trip	The Company has enriched the benefits for overseas business trips, providing employees who travel across borders with paid leave after coming back from the trips to facilitate cultural exchange activities among employees.
Interest-free loans for employees	The Company cares for all employees, assists them to live and work in peace and contentment, and support their growth and development. To this end, the Company provides interest-free loans to eligible employees for the purposes of continuing education, home purchase, and serious disease treatment or emergency medical treatment. In 2023, the interest-free loans amounting to about CNY 16.98 million benefited 56 employees.

Type	Contents
Holiday benefits	In line with local laws and regulations around the world, the Company provides employees with diversified holiday benefits, including maternity leave, paternity leave, parental leave, paid leave to care for aged parents in hospital for only child, sick leave, work-related injury leave, examination leave, family leave, time off in lieu, and paid annual leave, in a bid to help employees strike a balance between work and life.

## A Case

### Benefits for female employees

The Company cares about the health and life of female employees and provides them with a variety of benefits. For example, female employees are entitled to women-only monthly allowances and benefits on the International Women’s Day. The Company also organizes diverse cultural activities such as sand painting, and pearl polishing to enrich the lives of female employees. The Company values the health of female employees, providing additional physical examination options such as gynecological examinations and cervical cancer screenings, as well as commercial Female Health Insurance.



## Occupational health and safety

### Occupational health and safety management

In accordance with laws and regulations on health and safety, the Company has formulated a safety management action strategy engaging all employees, adopted various measures to minimize health and safety risks, and strives to become a model of health and safety in the industry.

The Company requires all employees to sign the *Letter of Commitment to Work Safety Goals* to link safety indicators with performance appraisal, imposing two-way management responsibility to ensure that every employee understands, performs and fulfills his/her responsibilities. During the reporting period, there was no penalty or lawsuits against the Company in terms of occupational health and safety.

Risk management and control mechanism:

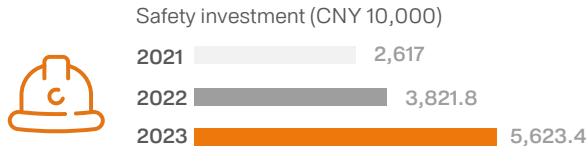
The Company piloted a dual prevention mechanism comprising classified management and control of production safety risks, coupled with the investigation and management of hidden hazards. The company encourages all employees to participate in the identification and evaluation of risk points and hazards, and forms a hierarchical control list. Visual management is carried out through four-color safety risk charts and job risk cards, adopting engineering technology protection, inspection and testing tools,

configuring individual protection, and standardizing operating standards to strengthen on-site risk control.

Accident handling mechanism:

According to the management document *EHS Incident (Accident) Reporting and Response Procedures*, accidents should be immediately reported level by level, while triggering the emergency response and accident reporting process. Accident investigation and response shall be organized and carried out by multiple departments. In response to problems exposed in the accident, corrective and preventive measures shall be taken. Rectification must be conducted in closed loop. After the accident, accident warning education shall be carried out. In addition, targeting at the problems exposed during the accident, the competent department shall be invited for risk re-evaluation and upgraded measures of management and control.





The Company continues to increase investment in safety. During the reporting period, all domestic manufacturing bases established ISO45001 occupational health and safety manage-

ment systems and received third-party certification. Overseas manufacturing bases are in progress.

Name	Total working hours	Fatal accidents	Accidents with serious injuries	Accidents with minor injuries	Recordable accidents	Lost worktime per million working hours	Accident severity rate	Recordable accident rate	Occupational disease patients
Sungrow	14,284,800	0	0	12	33	0.840	8.961	3.150	0
Sungrow Energy Storage	1,305,600	0	0	1	9	0.766	3.830	7.659	0
Sungrow Hydrogen	1,322,400	0	0	1	2	0.756	8.318	2.269	0
Sungrow Renewables	451,200	0	0	0	0	0	0	0	0
Sungrow FPV	436,800	0	0	0	4	0	0	9.158	0
Sungrow E-Power	3,921,600	0	0	1	4	0.255	1.275	1.275	0
Sungrow (Nanjing)	642,756	0	0	0	0	0	0	0	0
Sungrow (Shanghai)	602,400	0	0	0	0	0	0	0	0
Indian Plant	129,168	0	0	0	1	0	0	7.742	0
Thailand Plant	218,400	0	0	0	2	0	0	9.158	0
Total	23,315,124	0	0	15	55	0.643	6.391	3.002	0

Note:

1. A serious injury accident is a loss of work for more than 105 days, and a minor injury is between 1 day and 105 days. The accident can only be recorded as a medical incident or a work restriction incident
2. Lost-Time Injury Frequency Rate (LTIFR)=number of loss accidents x 1,000,000/working hours.
3. Lost Time Day Rate (LTDR)=number of days lost x 1,000,000/working hours.
4. Total Recordable Injury Frequency Rate (TRIFR)=Total number of recordable incidents x 1,000,000/working hours.

## Occupational health and safety training

The Company has put in place a health and safety training matrix covering all employees, including executives, middle managers, new managers, new employees, professional and technical personnel and contractors. Various training courses have been devised and given to improve the safety awareness and skills, including EHS leadership and management capabilities, general safety training, special operation safety training, and training for employees exposed to occupational hazards. To improve the quality of EHS trainers, a monthly implementation plan for professional empowerment has been formulated to strengthen

empowerment of capabilities for different types of business. A two-way evaluation between trainers and trainees is required, so as to make improvement targeting at typical problems.

In 2023, a total of 110 EHS accident drills were conducted for high-risk items and accident-prone items in EHS risk identification, registering a year-on-year increase of 144.4%, and the number of trainees increased by 170% year on year. Education and training programs in various forms were carried out to ensure the utmost effectiveness, including offline training, online learning, symposiums, and scenario experience.

In addition, the Company has launched a variety of activities for health and safety education, such as occupational disease publicity week, safety month, themed activities on the Fire Services Day, articles on EHS professional knowledge, and safety skills competitions. All these efforts aim to help employees establish correct safety values, proactively pay attention to risks at work, report safety risks promptly, participate in rectification of hidden dangers, and make employee behavior safer. At the same time, regular training and assessments are conducted for construction parties to help them develop safety management capabilities and reduce safety risks in the Company.

The Company has set up a health and safety committee, comprising employee representatives. The health and safety meetings are convened regularly on a quarterly basis. Safety meeting has been incorporated into the scope of monthly report for each depart-

ment and constitutes an integral part of the Company's production safety responsibility system. Meanwhile, the Company encourages employees to help improve health and safety measures, actively contribute ideas and suggestions, and build a safety culture engaging each and every employee. In 2023, we received 505 rational suggestions and 2,241 proposals for improvement from employees, registering a year-on-year increase of 332% and 244%, respectively.

The Company has enabled employees to snap pictures of hidden dangers and established open channels for feedback from employees. To protect the privacy of employees who provide feedback, only the EHS department has access to the reporting process based on snap pictures on mobile phones. The department responsible for hidden dangers and other departments have no access to relevant information.

## Digital management of occupational health and safety

The Company has been building the EHS digital information management platform. It has developed integrated low-code apps to fulfill the functions of engaging all employees in the investigation of hidden safety hazards, approval of hazardous operation processes on mobile terminals, self-service registra-

tion and management of occupational health, and safety points system. Its application will be expanded to EHS education and training, risk identification and classification, and emergency response to continuously increase EHS management efficiency and reduce risks.

## Public Welfare and Community Engagement

To ensure the rational and efficient use of charity funds and fulfill corporate social responsibilities, the Company formulated the *Regulations on Managing External Donations*, developed implementation plans for public welfare products, and empowered public welfare volunteer service in terms of system, process, and resources. By fully leveraging its advantages and professional capabilities, the Company rolled out public welfare

volunteer programs in ecology and environment protection, support for education, technology and human resources, poverty alleviation, community development, and disaster relief. Throughout the year, the Company made a total donation of CNY 5.8779 million to repay the care and support received from society.

## Ecological and environmental conservation

In October 2023, Sungrow, together with The Nature Conservancy (TNC) and Deyang Administration of Giant Panda National Park, planted about 6.67 hectares of bamboo and trees and built ten artificial caves for wildlife. The "Sungrow Forest Program" aims to plant bamboo and trees covering over 33 hectares in five years, rebuild life corridors and restore ecology, and promote the restoration of giant panda habitats. By now, about 13.3 hectares of forest have been planted under the program.

In addition, the Company initiated the program of Global Volunteer Service Week. Themed on "Go for Nature", the Company

organizes volunteer services for environmental protection worldwide every year, calling for people to take actions to safeguard the green environment, embrace the nature, and pass on the power of charity. As of the end of 2023, 1,352 volunteers had registered in the Company, contributing a total of 3,442 hours to volunteer services. In the future, we will further improve the volunteer management system, come up with more diverse global activities, and increase the number of registered volunteers and the length of volunteer services.

## A Case

### Volunteer service programs in the Middle East

During the 2023 Global Volunteer Service Week, the Sungrow Middle East joined hands with the renowned Hatta Honey Bee Garden in the United Arab Emirates to launch the program themed on “getting close to nature and knowing more about bees”. The program helped participants learn about beekeeping on site and made flower seed “bombs” to help maintain bee populations and enhance biodiversity.



## Support education, technology, and talent

The Company values innovation, education, and talents. We have hosted three sessions of “Sungrow University Innovation Competition” to encourage creation and innovation in power electronics among college students across the country. Meanwhile, a field trip to the Company is organized for the participants, during which they could communicate with the executives and our colleagues in Human Resource Department. Moreover, the Company has actively donated scholarships to Zhejiang University and Hefei University of Technology to support education development, further deepen its cooperation with universities and research institutes, promote the industrialization of sci-tech achievements, and motivate more students to work hard.



## Community support

Sungrow has actively contributed to community development. Specifically, we have made donations for the building of Sungrow Smart Classrooms and the opening of Sungrow Courses to disseminate popular science on new energy, in the hope of contributing a part to the children’s growth and education. In addition, the Company has initiated the Sungrow Elderly Care program and made donations for the building of an activity center for the elderly in the village, in an effort to care for the physical and mental health of lonely elderly people in rural areas and make the elderly feel happy and secure in their old age.

## Rural revitalization

Centering on the national strategy of rural revitalization, Sungrow has actively responded to national policies on green development, energy conservation and emission reduction. The Company has made donations to the village collective for the building of photovoltaic power stations, with a view to facilitating the sustainable development of villages and towns. Jinchang City located in the central Gansu Province is endowed with rich solar energy resources. The building of Xinliangdi Village Committee in Shuangwan Town, Jinchuan District

## Disaster relief

After a 6.2-magnitude earthquake jolted Jishishan County of Linxia Hui autonomous prefecture in Northwest China’s Gansu province in the late night on 18 December 2023, the Company acted promptly to figure out the needs of the affected people and donated CNY one million to the China Foundation for Rural Development for emergency disaster relief and post-disaster reconstruction.

is well positioned, with no shieldings around. Therefore, the entire building roof is used for the building of a 100.8kW photovoltaic power station. It’s officially connected to the grid for power generation on 20 August 2023, with the proceeds from power generation used for central heating of the nursing home in Xinliangdi Village, as well as the renovation and improvement of the living environment in the village.

# Looking into the future

Sungrow will uphold the mission of “Clean power for all”, incorporate the ESG concept of “Green Mission Better Life” into its operation, and comprehensively promote the strategic objectives from the decision-making level, management level and execution level. We will continue to increase the proportion of renewable energy utilization, systematically promote energy conservation and emission reduction, and work with our partners to achieve net-zero emissions in the supply chain as soon as possible. We will continue to improve our management capabilities in the areas of R&D and innovation, climate change response, sustainable supply chain, compliance and risk management, and employee rights and interests, and will lead by example and work with our partners to build an ecosystem of value chain that is honest, sustainable, and win-win, so that no one will be left behind in the clean energy transition. At the same time, we will actively take on the responsibility of corporate citizenship and contribute our professional strength to the United Nations Sustainable Development Goals.



# List of Main Enterprises

Full name	Abbreviation
Sungrow Power Supply Co., Ltd.	Sungrow
Sungrow Renewables Development Co., Ltd.	Sungrow Renewables
Sungrow Energy Storage Technology Co., Ltd.	Sungrow Energy Storage
Sungrow FPV Sci.& Tech. Co., Ltd.	Sungrow FPV
Hefei Sungrow E-Power Technology Co., Ltd.	Sungrow E-Power
Sungrow Smart O&M Technology Co., Ltd.	Sungrow Smart O&M
Sungrow Hydrogen Sci. & Tech. Co., Ltd.	Sungrow Hydrogen
Hefei Zero Carbon Technology Co., Ltd.	Sungrow Zero Carbon
Sungrow iCarbon Hui Technology Co., Ltd.	Sungrow iCarbon
Sungrow Power (Shanghai) Co., Ltd.	Sungrow (Shanghai)
Sungrow Power (Nanjing) Co., Ltd.	Sungrow (Nanjing)
Sungrow Power (Shenzhen) Co., Ltd.	Sungrow (Shenzhen)
Sungrow Power Equipment (Beijing) Co., Ltd.	Sungrow (Beijing)
SUNGROW DEVELOPERA INDIA PRIVATE LIMITED	India Plant
SUNGROW DEVELOPERS (THAILAND) CO., LTD.	Thailand Plant



# Appendix

## ESG KPIs

Topics	Disclosure	Unit	2023	2022	2021
<b>Corporate Governance</b>	Number of board members	Person	8	8	8
	Number of female directors	Person	1	1	1
	Number of independent directors	Person	3	3	3
	Number of non-independent directors	Person	5	5	5
	Percentage of female directors on the board	%	12.5	12.5	12.5
<b>Anti-corruption</b>	Number of employees receiving anti-corruption special training	Person	4,400	\	\
	Percentage of employees receiving anti-corruption special training	%	32.12	\	\
	Percentage of new employees receiving anti-corruption special training	%	100	\	\
	Total number of hours of anti-corruption training received by employees	Hour	70,400	\	\
	Average number of hours of anti-corruption training received by employees	Hour	5.13	\	\
<b>Economic performance</b>	Operating income	CNY 100 million	722.5	402.6	241.4
	Net profit attributable to shareholders of the listed companies	CNY 100 million	94.4	35.9	15.8
<b>Environmental management system</b>	Number of penalties for violations of environmental protection laws and regulations	Piece	0	0	0
	Investment in environmental protection	CNY 10,000	795	729	348
	ISO14001 system coverage rate of R&D and manufacturing bases	%	100	70	55.6
<b>Energy management</b>	Natural gas consumption	m <sup>3</sup>	118,273	99,749	67,926
	Total power consumption	kWh	186,819,983.1	114,337,023	72,205,295
	Percentage of renewable electricity consumption	%	55	45	35
	Comprehensive energy consumption	Tons of std.coal	23,421.687	14,407.6	9,141.5
	Energy consumption per unit of product	kg std.coal/kW	0.0884	0.0899	0.0907
<b>Water resource management</b>	Total water consumption	Ton	459,024	316,713	206,133
	Total wastewater discharge	Ton	367,219	253,370	164,906
	Water consumption density	kg/kW	2.34	2.73	2.81



Topics	Disclosure	Unit	2023	2022	2021
<b>Wastewater management</b>	BOD <sub>5</sub> emissions	Ton	26.44	17.81	18.24
	BOD <sub>5</sub> emission intensity per unit of product	kg/GW	127.5	153.6	241.8
	COD emission	Ton	59.49	43.764	37.928
	COD emission intensity per unit of product	kg/GW	287	378	506
	NH <sub>3</sub> -N emission	Ton	8.262	5.184	3.463
	NH <sub>3</sub> -N emission intensity per unit of product	kg/GW	39.8	44.7	45.9
<b>Exhaust gas management</b>	VOC emission	Ton	8.874	5.21	4.38
	VOC emission intensity per unit of product	kg/GW	42.79	44.99	59.75
	Particulate matter emission	Ton	2.673	2.853	7.345
	Particulate matter emission intensity per unit of product	kg/GW	12.89	24.64	100.20
<b>Waste management</b>	Total solid waste discharge	Ton	3,210.48	1,967.96	1,406.02
	Hazardous waste discharge	Ton	452.89	189.47	43.11
	Non-hazardous waste discharge	Ton	2,757.59	1,778.49	1,362.91
	Solid waste generated per unit of product	Ton/GW	16.16	16.97	18.63
	Utilization rate of non-hazardous waste	%	60.1	55.9	52.3
	Disposal rate of hazardous waste in compliance with laws and regulations	%	100	100	100
<b>Green-house gas emissions</b>	Scope 1 greenhouse gas emissions	tons of CO <sub>2</sub> equivalent	3,594	3,459	2,323
	Scope 2 greenhouse gas emissions	tons of CO <sub>2</sub> equivalent	38,161	39,798	35,911
	Scope 3 greenhouse gas emissions	tons of CO <sub>2</sub> equivalent	8,953,862	\	\
	Scope 1 greenhouse gas emissions (Sungrow+Sungrow Energy Storage)	tons of CO <sub>2</sub> equivalent	3,510	3,311	2,323
	Scope 2 greenhouse gas emissions (Sungrow+Sungrow Energy Storage)	tons of CO <sub>2</sub> equivalent	35,146	37,816	35,911
	Scope 3 greenhouse gas emissions (Sungrow+Sungrow Energy Storage)	tons of CO <sub>2</sub> equivalent	8,953,862	\	\
	Scope 1 greenhouse gas emissions (Indian factory)	tons of CO <sub>2</sub> equivalent	56	141	\
	Scope 2 greenhouse gas emissions (Indian factory)	tons of CO <sub>2</sub> equivalent	1,035	936	\
	Scope 1 greenhouse gas emissions (Thai factory)	tons of CO <sub>2</sub> equivalent	28	7	\
Scope 2 greenhouse gas emissions (Thai factory)	tons of CO <sub>2</sub> equivalent	1,980	1,046	\	
<b>Customer relationship</b>	Number of confirmed incidents of breach, theft or loss of customer data	Piece	0	0	0
	Customer satisfaction	%	93.9	93.8	93.5

Topics	Disclosure	Unit	2023	2022	2021
<b>R&amp;D innovation</b>	R&D investment	CNY10,000	116,139	169,216	244,739
	Number of granted patents during the reporting period	Piece	4,123	2,877	1,952
	Number of approved trademarks during the reporting period	Piece	274	93	45
<b>Supply chain management</b>	Total number of suppliers (At the end of the period)	Unit	650	691	\
	Number of suppliers in Chinese mainland (At the end of the period)	Unit	629	673	\
	Number of Suppliers from Hong Kong, Macau, Taiwan, and overseas regions (At the end of the period)	Unit	21	18	\
	Number of suppliers that have conducted environmental and social impact assessments	Unit	33	\	\
	Number of confirmed suppliers exposed to actual and potential significant negative environmental and social impacts	Unit	0	\	\
	Number of suppliers that agreed to improve after environmental and social impact assessment	Unit	33	\	\
	Percentage of suppliers agreeing to improvements after environmental and social impact assessment	%	100	\	\
	Total number of new suppliers	Unit	56	95	\
	Number of key suppliers	Unit	51	\	\
	Supplier ISO 14001 certification ratio	%	66.17	\	\
	Supplier ISO 45001 certification ratio	%	53.32	\	\
	Supplier ISO 9001 certification ratio	%	88.87	\	\
	Revenue from products containing conflict minerals	CNY 10,000	0	0	0
	Suppliers have undergone responsible mineral due diligence	Unit	123	\	\
<b>Recruitment and Employment</b>	Social insurance coverage rate	%	100	100	100
	Labor contract signing rate	%	100	100	100
	Total number of employees	Person	13,697	9,239	6,726
	Number of male employees	Person	11,118	7,477	5,509
	Number of female employees	Person	2,579	1,762	1,217
	Percentage of female employees	%	18.82	19.07	18.09
	Number of employees aged over 51	Person	130	96	79
	Number of employees aged 41 to 50	Person	724	449	378
	Number of employees aged 31 to 40	Person	6,340	4,517	3,570
	Number of employees aged below 30	Person	6,503	4,177	2,699
	Number of employees working in China	Person	12,274	8,326	6,075
	Number of employees working overseas	Person	1,423	913	651
	Number of ethnic minority employees	Person	269	107	86

Topics	Disclosure	Unit	2023	2022	2021
<b>Recruitment and Employment</b>	Number of disabled employees	Person	26	12	12
	Number of grassroots employees	Person	11,806	\	\
	Number of junior managers	Person	1,292	\	\
	Number of middle managers	Person	529	\	\
	Number of senior managers	Person	70	\	\
	Percentage of female managers	%	15.7	13.45	14.21
	Employee turnover rates	%	15.67	16.68	14.94
	Male employee turnover rate	%	16.53	17.59	15.45
	Female employee turnover rate	%	11.98	12.35	12.54
	Turnover rate of employees aged over 50	%	15.04	11.43	10.61
	Turnover rate of employees aged 41-50	%	12.28	11.61	12.30
	Turnover rate of employees aged 31-40	%	14.66	15.75	14.68
	Turnover rate of employees aged below 30	%	17.08	18.35	15.74
	Turnover rate of employees working in China	%	15.19	16.19	14.75
	Turnover rate of employees working in overseas	%	19.94	20.46	16.75
	Performance based variable compensation employee coverage rate	%	100	100	100
<b>Occupational Health and Safety</b>	Health and safety investment	CNY 10,000	5,623.4	3,821.8	2,617
	Number of work-related deaths among employees	Person	0	0	0
	Percentage of work-related deaths among employees	%	0	0	0
	Number of lost worktime due to work injury	Day	149	72	66
	Total number of employees participating in safety training	Person	5,367	\	\
	Per capita training duration for occupational health and safety	Hour	15.98	15.85	\
	Number of safety training sessions	\	162	\	\
	lost-time injury frequency rate per million hours worked	\	0.840	0.851	0.42
	ISO45001 system coverage rate of R&D and manufacturing bases	%	80	62.5	71.4
Major safety accidents	Times	0	0	0	
<b>Employee training and development</b>	Investment of employee training	CNY 10,000	2,054	1,502	1,221
	Employee training coverage rate	%	100	100	100
	Percentage of male employees covered by training	%	100	100	100
	Percentage of female employees covered by training	%	100	100	100
	Percentage of grassroots employees covered by training	%	100	100	100
	Percentage of junior managers covered by training	%	100	100	100
	Percentage of middle managers covered by training	%	100	100	100
	Percentage of senior managers covered by training	%	100	100	100
	Average training hours of employees	Hour	90	28.62	39.42
	Average training hours of male employees *	Hour	44.5	\	\

\* The average training duration by gender is only counted for online training duration, and future plans are to count all forms of training duration.

Topics	Disclosure	Unit	2023	2022	2021
	Average training hours of female employees	Hour	48.8	\	\
	Organizational Health (Full Score: 100%)	%	86.8	87.7	87.8
	Employee engagement score (Full Score: 5)	\	4.28	4.25	4.24
<b>Charity and volunteer services</b>	Total amount of donations	CNY 10,000	587.79	748.07	526.2
	Total hours of employees' volunteer services	Hour	3,442	\	\

## GRI Index

Statement of use	Sungrow has reported in accordance with the GRI Standards for the period January 1 to December 31, 2023
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI sector standard(s)	No applicable sector standard

GRI Standards/ others	Disclosure	Section	Notes on omission		
			Omitted requirements	Reason	Explanation
<b>General Disclosure</b>					
<b>GRI 2: General Disclosure 2021</b>	2-1 Organizational details	About Sungrow			
	2-2 Entities included in the organization's sustainability reporting	List of Main Enterprises			
	2-3 Reporting period, frequency and contact point	About the Report			
	2-4 Restatements of information	Carbon emission data for the past three years has been uniformly retained in individual digits			
	2-5 External assurance	Independent Assurance Statement			
	2-6 Activities, value chain and other business relationships	About Sungrow; Global Presence; Sustainable Supply Chain			
	2-7 Employees	Diversity and Inclusion			
	2-8 Workers who are not employees	Diversity and Inclusion			
	2-9 Governance structure and composition	Corporate Governance; Board Diversification and Independence			
	2-10 Nomination and selection of the highest governance body	Board Diversification and Independence			
	2-11 Chair of the highest governance body	Corporate Governance			
	2-12 Role of the highest governance body in overseeing the management of impacts	Sustainability Governance			
	2-13 Delegation of responsibility for managing impacts	Sustainability Governance			
	2-14 Role of the highest governance body in sustainability reporting	Sustainability Governance			

GRI Standards/ others	Disclosure	Section	Notes on omission		
			Omitted requirements	Reason	Explanation
	2-15 Conflicts of interest	Corporate governance; Compliance and Risk Management			
	2-16 Communication of critical concerns	Corporate governance; Communications with stakeholders			
	2-17 Collective knowledge of the highest governance body	Sustainability Strategy			
	2-18 Evaluation of the performance of the highest governance body	Sustainable Development Management			
<b>GRI 2: General Disclosure 2021</b>	2-19 Remuneration policies	Corporate Governance			
	2-20 Process to determine remuneration	Corporate Governance			
	2-21 Annual total compensation ratio	Omitted	<b>2-21-a, 2-21-b, 2-21-c</b>	Confidentiality constraints	Salary information involves company secrets and is not disclosed to the public for the time being
	2-22 Statement on sustainable development strategy	Sustainability Strategy			
	2-23 Policy commitments	Employee Rights and Interests; Business Ethics			
	2-24 Embedding policy commitments	Employee Rights and Interests; Business Ethics			
	2-25 Processes to remediate negative impacts	Business Ethics			
	2-26 Mechanisms for seeking advice and raising concerns	Business Ethics			
	2-27 Compliance with laws and regulations	Refer to the respective sections of the Report			
	2-28 Membership associations	Communications with Stakeholders; Industry-University-Research Collaboration			
	2-29 Approach to stakeholder engagement	Communications with Stakeholders			
	2-30 Collective bargaining agreements policies	Employee Rights and Interests			
<b>Material Topics</b>					
<b>GRI 3: Material Topics 2021</b>	3-1 Process to determine material topics	Evaluation of Material Topics			
	3-2 List of material topics	Evaluation of Material Topics			



GRI Standards/ others	Disclosure	Section	Notes on omission		
			Omitted requirements	Reason	Explanation
<b>Economic Performance</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Management of Material Topics			
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Annual Performance			
	201-2 Financial implications and other risks and opportunities due to climate change	Towards Net Zero			
	201-3 Defined benefit plan obligations and other retirement plans	Employee Benefits			
	201-4 Financial assistance received from government	Please refer to 2023 Sungrow Annual Report			
<b>Market Presence</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Employee training and development			
GRI 202: Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	Fair remuneration and benefits			
	202-2 Proportion of senior management hired from the local community	Employee recruitment			
<b>Indirect Economic Impacts</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Public Welfare and Community Engagement			
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	Public Welfare and Community Engagement			
	203-2 Significant indirect economic impacts	Public Welfare and Community Engagement			
<b>Procurement Practices</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainable supply chain			
GRI 204: Procurement Practices	204-1 Proportion of spending on local suppliers	Sustainable supply chain			
<b>Anti-corruption</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Business ethics			

GRI Standards/ others	Disclosure	Section	Notes on omission		
			Omitted requirements	Reason	Explanation
<b>GRI 205: Anti-corruption 2016</b>	205-1 Operations assessed for risks related to corruption	Business ethics			
	205-2 Communication and training about anti-corruption policies and procedures	Business ethics			
	205-3 Confirmed incidents of corruption and actions taken	Business ethics			
<b>Anti-competitive Behavior</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Business ethics			
<b>GRI 206: Anti-competitive Behavior</b>	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Business ethics			
<b>Energy</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Towards net zero			
<b>GRI 302: Energy 2016</b>	302-1 Energy consumption within the organization	Towards net zero			
	302-2 Energy consumption outside of the organization	Towards net zero			
	302-3 Energy intensity	Towards net zero			
	302-4 Reduction of energy consumption	Towards net zero			
	302-5 Reductions in energy requirements of products and services	Towards net zero			
<b>Water resource and effluents</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Pollutants and waste management			
<b>GRI 303: Water and Effluents 2018</b>	303-1 Interactions with water as a shared resource	Pollutants and waste management			
	303-2 Management of water discharge-related impacts	Pollutants and waste management			
	303-3 Water withdrawal	Pollutants and waste management			
	303-4 Water discharge	Pollutants and waste management			

GRI Standards/ others	Disclosure	Section	Notes on omission		
			Omitted requirements	Reason	Explanation
	303-5 Water consumption	Pollutants and waste management			
<b>Biodiversity</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Biodiversity			
<b>GRI 304: Biodiversity 2016</b>	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Biodiversity			
	304-2 Significant impacts of activities, products, and services on biodiversity	Biodiversity			
	304-3 Habitats protected or restored	Biodiversity			
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	Biodiversity			
<b>Emissions</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Towards net zero			
<b>GRI 305: Emission 2016</b>	305-1 Direct (Scope 1) GHG emissions	Towards net zero			
	305-2 Energy indirect (Scope 2) GHG emissions	Towards net zero			
	305-3 Other indirect (Scope 3) GHG emissions	Towards net zero			
	305-4 GHG emissions intensity	Towards net zero			
	305-5 Reduction of GHG emissions	Towards net zero			
	305-6 Emissions of ozone-depleting substances (ODS)	Omitted	305-6-a, 305-6-b, 305-6-c, 305-6-d	Not applicable	No significant emissions of relevant substances during the reporting period, thus not quantified
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Pollutants and Waste Management			

GRI Standards/ others	Disclosure	Section	Notes on omission		
			Omitted requirements	Reason	Explanation
<b>Waste</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Pollutants and waste management			
<b>GRI 306: Waste 2020</b>	306-1 Waste generation and significant waste-related impacts	Pollutants and waste management			
	306-2 Management of significant waste-related impacts	Pollutants and waste management			
	306-3 Waste generated	Pollutants and waste management			
	306-4 Waste diverted from disposal	Pollutants and waste management			
	306-5 Waste directed to disposal	Pollutants and waste management			
<b>Supplier Environmental Assessment</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Sustainable supply chain			
<b>GRI 308: Supplier Environmental Assessment 2016</b>	308-1 New suppliers that were screened using environmental criteria	Sustainable supply chain			
	308-2 Negative environmental impacts in the supply chain and actions taken	Sustainable supply chain			
<b>Employment</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Employee recruitment			
<b>GRI 401: Employment 2016</b>	401-1 New employee hires and employee turnover	Employee recruitment			
	401-2 Benefits provided to full-time employees who are not provided for temporary or part-time employees	Fair remuneration and benefits			
	401-3 Parental leave	Fair remuneration and benefits			
<b>Labor/Management Relations</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Employee rights and interests			

GRI Standards/ others	Disclosure	Section	Notes on omission		
			Omitted requirements	Reason	Explanation
<b>GRI 402: Labor/Management Relations 2016</b>	402-1 Minimum notice periods regarding operational changes	Employee rights and interests			
<b>Occupational Health and Safety</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Occupational health and safety			
<b>GRI 403: Occupational Health and Safety 2018</b>	403-1 Occupational health and safety management system	Occupational health and safety			
	403-2 Hazard identification, risk assessment, and incident investigation	Occupational health and safety			
	403-3 Occupational Health Services	Occupational health and safety			
	403-4 Worker participation, consultation, and communication on occupational health and safety	Occupational health and safety			
	403-5 Worker training on occupational health and safety	Occupational health and safety			
	403-6 Promotion of worker health	Occupational health and safety			
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Occupational health and safety			
	403-8 Workers covered by an occupational health and safety management system	Occupational health and safety			
	403-9 Work-related injuries	Occupational health and safety			
	403-10 Work-related ill health	Occupational health and safety			
<b>Training and Education</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Employee training and development			
<b>GRI 404: Training and Education 2016</b>	404-1 Average hours of training per year per employee	Employee training and development			
	404-2 Programs for upgrading employee skills and transition assistance programs	Employee training and development			
	404-3 Percentage of employees receiving regular performance and career development reviews	Employee training and development			

GRI Standards/ others	Disclosure	Section	Notes on omission		
			Omitted requirements	Reason	Explanation
<b>Diversity and Equal Opportunity</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Employee rights and interests; Board diversification and independence			
<b>GRI 405: Diversity and Equal Opportunity 2016</b>	405-1 Diversity of governance bodies and employees 405-2 Ratio of basic salary and remuneration of women to men	Board diversification and independence Omitted	405-2-a	Confidentiality constraints	Fair remuneration policy is adopted by the Company. Due to the company's confidentiality, the proportion of remuneration for each gender group in each category of employees is not disclosed for the time being
<b>Non-discrimination</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Employee rights and interests			
<b>GRI 406: Non-discrimination 2016</b>	406-1 Incidents of discrimination and corrective actions taken	Employee rights and interests			
<b>Freedom of Association and Collective Bargaining</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Employee rights and interests			
<b>GRI 407: Freedom of Association and Collective Bargaining 2016</b>	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Employee rights and interests			
<b>Child Labor</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Employee rights and interests			
<b>GRI 408: Child Labor 2016</b>	408-1 Operations and suppliers at significant risk for incidents of child labor	Employee rights and interests			
<b>Forced or Compulsory Labor</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Employee rights and interests			
<b>GRI 409: Forced or Compulsory Labor 2016</b>	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Employee rights and interests			


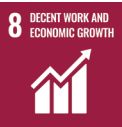






GRI Standards/ others	Disclosure	Section	Notes on omission		
			Omitted requirements	Reason	Explanation
<b>Rights of Indigenous Peoples</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Public welfare and community engagement; Biodiversity			
GRI 411: Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	Public welfare and community engagement; Biodiversity			
<b>Local Communities</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Public welfare and community engagement			
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	Public welfare and community engagement			
	413-2 Operations with significant actual and potential negative impacts on local communities	Public welfare and community engagement			
<b>Supplier Social Assessment</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainable supply chain			
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	Sustainable supply chain			
	414-2 Negative social impacts on the supply chain and actions taken	Sustainable supply chain			
<b>Customer Health and Safety</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Customer relationship management; Product quality and safety			
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	Customer relationship management; Product quality and safety			
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Customer relationship management; Product quality and safety			
<b>Customer Privacy</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Information and Privacy Security			
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Information and Privacy Security			

## Sungrow’s Contribution to SDGs

Sungrow promotes the United Nations’ Sustainable Development Goals (SDGs) and has identified the ones that are closely related to the Company. We comprehensively advance respon-

sible and sustainable corporate governance and business practices, to pursue a harmonious and win-win situation between commercial values and social values.

SDG	Sections	Our Actions
	<p>About Sungrow; Towards net zero; Product development and innovation</p>	<p>SDG 7.1&amp;7.2: Dedicated to the mission of “clean power for all”, Sungrow’s core product photovoltaic inverters are sold in batches to 170-plus countries/regions worldwide. The installed capacity of inverter equipment is growing with a cumulative installed capacity of over 515GW in the global market, boosting the development of the new energy industry with its comprehensive strength.</p> <p>SDG 7.3: To improve energy efficiency, Sungrow has established and improved the energy management system and related systems, and conducted comprehensive energy-saving and consumption-reducing technological transformations.</p> <p>SDG 7.A&amp;B: Sungrow enhances international cooperation on its core business and promotes the global development of clean energy technology. The Sungrow photovoltaic inverter products are sold worldwide, providing reliable supply of green power for international events such as the Winter Olympics, World Cup, and COP27.</p>
	<p>A recap of 2023; Diversity and Inclusion</p>	<p>SDG 8.2: Sungrow has seized the strategic opportunity of rapid new energy growth around the globe and significantly improved its operating performance.</p> <p>SDG 8.5: As a global enterprise, Sungrow attaches great importance to the diversity and equality of its employees and introduced the Management Procedures for Prohibition of Discrimination and Punitive Measures to prohibit discrimination in recruitment, promotion, and remuneration, among others. Meanwhile, the Company adheres to the principle of localized employment to promote local employment and economic growth.</p> <p>SDG 8.7: Sungrow strictly abides by international laws and regulations on human rights, practices the Management Procedures for Child Labor and Underage Labor to eradicate forced labor and the use of child labor, and regularly monitors the employment practices of suppliers to secure the basic human rights of all employees, including those engaged in the supply chain.</p> <p>SDG 8.8: Sungrow adheres to the operating policy of “being people-oriented, placing safety first, and promoting harmonious development”, continues to expand the coverage of the ISO45001 system, and takes multiple measures to ensure employee safety.</p>
	<p>Product R&amp;D and innovation</p>	<p>SDG 9.4: Sungrow has built a zero-carbon park, gradually realized refined management of industrial production energy and carbon emissions through PV power generation &amp; energy storage for clean energy supply + smart energy management platform monitoring, and improved the efficiency and sustainability of industrial resource use.</p>

SDG	Sections	Our Actions
		<p>SDG 9.5: With a focus on capacity building for independent innovation, Sungrow has established six R&amp;D centers in Hefei, Shanghai, Nanjing, Shenzhen, Germany and the Netherlands. It has continued to improve the organizational structure, management mechanism and process for R&amp;D. In addition, the Company has conducted innovation throughout the process of product R&amp;D, engineering design, smart manufacturing, and digital management.</p>
	<p>Public Welfare and Community Engagement</p>	<p>SDG 11.3: The Company's products and services have reached many countries and regions worldwide, including urban areas, countryside, coastal areas, islands, deserts, and high-altitude areas. We have promoted clean energy in cities to achieve green and low-carbon development, creating new momentum for community development.</p>
	<p>Eco-friendly development; Towards net zero</p>	<p>SDG 12.2, 12.4 &amp; 12.5: The Company continues to promote ISO14001 environmental management system certification and develop systems for waste management and pollutant control. We encourage reducing resource consumption and environmental impact through adoption of alternative raw materials, recycling of packaging material, and technological transformation.</p> <p>SDG 12.7: Sungrow has formulated the Code of Conduct for Suppliers to develop sustainable green supply chains and encourage suppliers to improve environmental management performance and reduce environmental risks by establishing environmental management systems, reducing pollutant emissions, and developing environment-friendly products. We investigate the production environment of newly developed suppliers, conduct audits from time to time to evaluate the environmental protection work of suppliers, and incorporate the audit results into the supplier's qualification appraisal.</p>
	<p>Towards net zero</p>	<p>SDG 13.2: The Company has joined the RE100 Initiative, committing to use 100% renewable energy in its manufacturing and operations worldwide by 2028. To this end, the Company has developed short-, medium-, and long-term action plans and broken down the targets into annual KPIs of relevant departments. In addition, the Company regularly supervised the execution of annual targets, optimized and adjusted the target values and corresponding carbon reduction measures in a timely manner.</p> <p>SDG 13.3: Sungrow has carried out emission reduction work in an orderly manner, reduced the carbon footprint during production and supply, strengthened publicity and education related to climate change, and guided the suppliers and partners to jointly promote low-carbon transition.</p>

## Ten principles of the UNGC Global Compact

Contents		Section
<b>Human Rights</b>		
Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights	Employee Rights and Interests
Principle 2	Businesses should make sure that they are not complicit in human rights abuses	Employee Rights and Interests
<b>Labor</b>		
Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	Employee Rights and Interests
Principle 4	Businesses should uphold the elimination of all forms of forced and compulsory labor	Employee Rights and Interests
Principle 5	Businesses should uphold the effective abolition of child labor	Employee Rights and Interests
Principle 6	Businesses should uphold the elimination of discrimination in respect of employment and occupation	Employee Rights and Interests
<b>Environment</b>		
Principle 7	Businesses should support a precautionary approach to environmental challenges	Eco-Friendly Development, Towards Net Zero
Principle 8	Businesses should undertake initiatives to promote greater environmental responsibility	Eco-Friendly Development, Towards Net Zero
Principle 9	Businesses should encourage the development and diffusion of environmentally friendly technologies	Eco-Friendly Development, Towards Net Zero
<b>Anti-Corruption</b>		
Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery	Business Ethics

## Index to IFRS S2—Climate-related Disclosures

KPI	Description	Section/Page
<b>Core content: Governance</b>		
S2.6.a	The governance body(s) (which can include a board, committee or equivalent body charged with governance) or individual(s) responsible for oversight of climate-related risks and opportunities	Towards Net Zero-Governance
S2.6.b	Management's role in the governance processes, controls and procedures used to monitor, manage and oversee climate-related risks and opportunities	
<b>Core content: Strategy</b>		
<b>S2.10 Climate-related risks and opportunities</b>		
S2.10.a	Describe climate-related risks and opportunities that could reasonably be expected to affect the entity's prospects	Towards Net Zero-Strategy
S2.10.b	Explain, for each climate-related risk the entity has identified, whether the entity considers the risk to be a climate-related physical risk or climate-related transition risk	
S2.10.c	Specify, for each climate-related risk and opportunity the entity has identified, over which time horizons—short, medium or long term— the effects of each climate-related risk and opportunity could reasonably be expected to occur	
S2.10.d	Explain how the entity defines 'short term', 'medium term' and 'long term' and how these definitions are linked to the planning horizons used by the entity for strategic decision-making	
<b>S2.13 Business model and value chain</b>		
S2.13.a	A description of the current and anticipated effects of climate-related risks and opportunities on the entity's business model and value chain	Towards Net Zero-Strategy
S2.13.b	A description of where in the entity's business model and value chain climate-related risks and opportunities are concentrated (for example, geographical areas, facilities and types of assets)	
<b>S2.14 Strategy and decision-making</b>		
S2.14.a	Information about how the entity has responded to, and plans to respond to, climate-related risks and opportunities in its strategy and decision-making, including how the entity plans to achieve any climate-related targets it has set and any targets it is required to meet by law or regulation	Towards Net Zero-Strategy
S2.14.b	How to provide resources for these plans	
S2.14.c	Quantitative and qualitative information about the progress of plans disclosed in previous reporting periods	

KPI	Description	Section/Page
<b>S2.16 Financial position, financial performance and cash flows</b>		
S2.16.a	How climate-related risks and opportunities have affected its financial position, financial performance and cash flows for the reporting period	Towards Net Zero-Strategy
<b>S2.22 Climate resilience</b>		
S2.22.a	The entity's assessment of its climate resilience	Towards Net Zero-Strategy
S2.22.b	How and when the climate-related scenario analysis was carried out	
<b>Core content: Risk management</b>		
S2.25.a	The processes and related policies the entity uses to identify, assess, prioritize and monitor climate-related risks	Towards Net Zero-Risk management
S2.25.b	The processes the entity uses to identify, assess, prioritize and monitor climate-related opportunities, including information about whether and how the entity uses climate-related scenario analysis to inform its identification of climate-related opportunities	
S2.25.c	The extent to which, and how, the processes for identifying, assessing, prioritizing and monitoring climate-related risks and opportunities are integrated into and inform the entity's overall risk management process	
<b>Core content: Indicators and targets</b>		
<b>S2.29 Climate-related metrics</b>		
S2.29.a	Greenhouse gases	Towards Net Zero-Indicators and targets
S2.32	An entity shall disclose industry-based metrics that are associated with one or more particular business models, activities or other common features that characterize participation in an industry Upon query, Sungrow Power shall refer to the metrics described in the Guidance on Solar Energy Technology and Project Development Industry for disclosure	
S2.33	An entity shall disclose the quantitative and qualitative climate-related targets it has set to monitor progress towards achieving its strategic goals, and any targets it is required to meet by law or regulation, including any greenhouse gas emissions targets	
S2.33.a	The metric used to set the target	
S2.33.b	The objective of the target (for example, mitigation, adaptation or conformance with science-based initiatives)	
S2.33.c	The part of the entity to which the target applies (for example, whether the target applies to the entity in its entirety or only a part of the entity, such as a specific business unit or specific geographical region)	



KPI	Description	Section/Page
S2.33.d	The period over which the target applies	Towards Net Zero-Indicators and targets
S2.33.e	The base period from which progress is measured	
S2.33.f	Any milestones and interim targets	
S2.33.g	If the target is quantitative, whether it is an absolute target or an intensity target	
S2.33.h	How the latest international agreement on climate change, including jurisdictional commitments that arise from that agreement, has informed the target	
S2.34	An entity shall disclose information about its approach to setting and reviewing each target, and how it monitors progress against each target	
S2.34.a	Whether the target and the methodology for setting the target have been validated by a third party	
S2.34.b	The entity's processes for reviewing the target	
S2.34.d	Any revisions to the target and an explanation for those revisions.	
S2.36	Contents of each greenhouse gas emissions target disclosed	
S2.36.a	Which greenhouse gases are covered by the target	
S2.36.b	Whether Scope 1, Scope 2 or Scope 3 greenhouse gas emissions are covered by the target	
S2.36.c	Whether the target is a gross greenhouse gas emissions target or net greenhouse gas emissions target. If the entity discloses a net greenhouse gas emissions target, the entity is also required to separately disclose its associated gross greenhouse gas emissions target	
S2.36.d	Whether the target was derived using a sectoral decarbonization approach	
S2.36.e	The entity's planned use of carbon credits to offset greenhouse gas emissions to achieve any net greenhouse gas emissions target	

# Independent Assurance Statement



## ASSURANCE STATEMENT

### SGS-CSTC'S REPORT ON SUSTAINABILITY ACTIVITIES IN THE *SUNGROW POWER SUPPLY CO., LTD. FOR 2023*

#### NATURE OF THE ASSURANCE/VERIFICATION

SGS-CSTC STANDARDS TECHNICAL SERVICES CO., LTD. (hereinafter referred to as SGS) was commissioned by SUNGROW POWER SUPPLY CO., LTD. (hereinafter referred to as SUNGROW) to conduct an independent assurance of the Chinese version of *SUNGROW POWER SUPPLY CO., LTD. 2023 SUSTAINABILITY REPORT* (hereinafter referred to as the Report).

#### INTENDED USERS OF THIS ASSURANCE STATEMENT

This Assurance Statement is provided with the intention of informing all SUNGROW's stakeholders.

#### RESPONSIBILITIES

The information in the report and its presentation are the responsibility of Environmental, Social and Governance Committee, Sustainability Management Committee and the Sustainable Development Center. SGS has not been involved in the preparation of any of the material included in the report.

Our responsibility is to express an opinion on the text, data, graphs and statements within the scope of verification with the intention to inform all SUNGROW POWER SUPPLY CO., LTD.'s stakeholders.

#### ASSURANCE STANDARDS, TYPE AND LEVEL OF ASSURANCE

The SGS ESG & Sustainability Report Assurance protocols used to conduct assurance are based upon internationally recognised assurance guidance and standards including the principles of reporting process contained within the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) GRI 1: Foundation 2021 for report quality, GRI 2 General Disclosure 2021 for organisation's reporting practices and other organizational detail, GRI 3 2021 for organisation's process of determining material topics, its list of material topics and how to manages each topic, and the guidance on levels of assurance contained within the AA1000 series of standards and ISAE3000.

The assurance of this report has been conducted according to the following Assurance Standards:

Assurance Standard Options		Level of Assurance
A	SGS ESG & SRA Assurance Protocols (based on GRI principles and guidance in AA1000)	moderate

#### SCOPE OF ASSURANCE AND REPORTING CRITERIA

The scope of the assurance included evaluation of quality, accuracy and reliability of specified performance information as detailed below and evaluation of adherence to the following reporting criteria:

Reporting Criteria Options	
1	GRI standards 2021 (In Accordance with)
2	IFRS S2 Climate-related Disclosures ( Reference)

#### ASSURANCE METHODOLOGY

The assurance comprised a combination of pre-assurance research, on site interviews with relevant employees located at SUNGROW'S Headquarter, No.1699, Xiyu Road, High-Tech Industry Development Zone, Hefei City, P. R. China. And video interviews with relevant employees of subsidiary company.

#### LIMITATIONS AND MITIGATION

Financial data drawn directly from independently audited financial accounts has not been checked back to source as part of this assurance process.

The carbon emission data are calculated by themselves with third party verification. During the assurance process, the carbon data audit was conducted on the sampling basis.

This verification was limited to the headquarters of SUNGROW POWER SUPPLY CO., LTD. and did not involve to go deep into all other branches.

In this verification, only some employees of relevant departments were interviewed and relevant materials were consulted, and the interviews did not involve external stakeholders.

#### STATEMENT OF INDEPENDENCE AND COMPETENCE

The SGS Group of companies is the world leader in inspection, testing and verification, operating in multiple countries and providing services including management systems and service certification; quality, environmental, social and ethical auditing and training; environmental, social and sustainability report assurance. SGS affirm our independence from SUNGROW POWER SUPPLY CO., LTD., being free from bias and conflicts of interest with the organisation, its subsidiaries and stakeholders.

The assurance team was assembled based on their knowledge, experience and qualifications for this assignment, and comprised auditors registered with CCAA registered ISO 9001 \ ISO 14001 \ ISO 45001 \ ISO 37001 \ ISO 37301 management system auditor, CSR report lead assessor.

## FINDINGS AND CONCLUSIONS

### ASSURANCE/VERIFICATION OPINION

On the basis of the methodology described and the verification work performed, the specified performance information included in the *SUNGROW POWER SUPPLY CO.,LTD. 2023 SUSTAINABILITY REPORT* is accurate, reliable, and provide a fair and pertinent statement of the sustainable development activities of SUNGROW POWER SUPPLY CO.,LTD. for the period from 1 January 2023 to 31 December 2023.

The assurance team is of the opinion that the *Report* is presented in accordance with the requirements of GRI Standards 2021.

### REPORT RULES

#### Accuracy

The data and information collection mechanism are objective and complete, and through accurate qualitative and quantitative descriptions, it was easy to evaluate the impact on the organization.

#### Balance

SUNGROW truthfully disclosed sustainable development topics based on stakeholder expectations.

#### Clarity

The report adopted various expressions such as text description, charts, graphics, photos, and combined case analysis to make it easy for stakeholders to understand.

#### Comparability

SUNGROW had disclosed performance indicators in 2023, previous data of partial indicators were disclosed, which could help stakeholders to understand and compare the improved performance year by year.

#### Completeness

Through good stakeholder communication, SUNGROW identified key issues of stakeholders and reflected significant economic, environmental and social impacts, enabled stakeholders to evaluate the impact of SUNGROW during the reporting period.

#### Sustainability Context

SUNGROW had presented the efforts on sustainability development related to economic, environmental and social aspects and combined the performance in the wide context as well.

#### Timeliness

The data disclosed by SUNGROW was within the reporting cycle and enabled stakeholders to timely obtain information and make reasonable decisions.

#### Verifiability

The data and information in the report could be traced and verified through internal good control and documented records

#### Management Approach

The Report had disclosed the management approach of identified material topics.

#### General Disclosures

The general disclosures were in accordance with GRI 2: general disclosures 2021.

#### Topic-Specific Disclosures

SUNGROW's topic-specific disclosures related to the material topics in economic, environmental, and social aspects were in accordance with GRI Standards 2021.

### FINDINGS AND RECOMMENDATIONS

Good practices and recommendations for sustainability report and management process were described in the internal management report which has been submitted to the management of SUNGROW POWER SUPPLY CO.,LTD. for continuous improvement.

Signed:



For and on behalf of SGS-CSTC

David Xin

Sr. Director – Business Assurance

16/F Century Yuhui Mansion, No. 73, Fucheng Road, Beijing, P.R. China

April 22<sup>th</sup>, 2024

WWW.SGS.COM

# Readers' Feedback

Dear readers:

Thank you for reading this report! In order to provide you and stakeholders with more valuable information, enable you to supervise our social responsibility practices, and improve our capability and level of fulfilling social responsibility, we sincerely hope that you can evaluate this report and make valuable comments and suggestions.

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Your feedback and suggestions may be submitted in the following ways:

Tel: +86 551 6532 7877

E-mail: [csr@sungrowpower.com](mailto:csr@sungrowpower.com)

Mailing Address: No. 1699 Xiyu Road, High-tech Industry Development Zone, Hefei, P.R. China.

Brand Center of Sungrow Power Supply Co., Ltd.

Post Code: 230088

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Feedback questionnaire:

1. Did you get the information you seek from this Sustainability Report?

Yes  General  No

2. Do you think this Sustainability Report fully reflects the economic responsibilities of Sungrow Power Supply Co., Ltd.?

Yes  General  No

3. Do you think this Sustainability Report fully reflects the environmental health and safety responsibilities of Sungrow Power Supply Co., Ltd.?

Yes  General  No

4. Do you think this Sustainability Report fully reflects the social responsibilities of Sungrow Power Supply Co., Ltd.?

Yes  General  No

5. Do you think this Sustainability Report fully reflects the product and service responsibilities of Sungrow Power Supply Co., Ltd.?

Yes  General  No

6. Do you think the content arrangement and layout design of this Sustainability Report are convenient for your reading?

Yes  General  No

7. Supplements:

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Thank you for your feedback and valuable time!

# SUNGROW

## Sungrow Power Supply Co., Ltd.

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Sungrow Youtube Account



Sungrow LinkedIn Account



Sungrow Facebook Account



Sungrow X Account



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