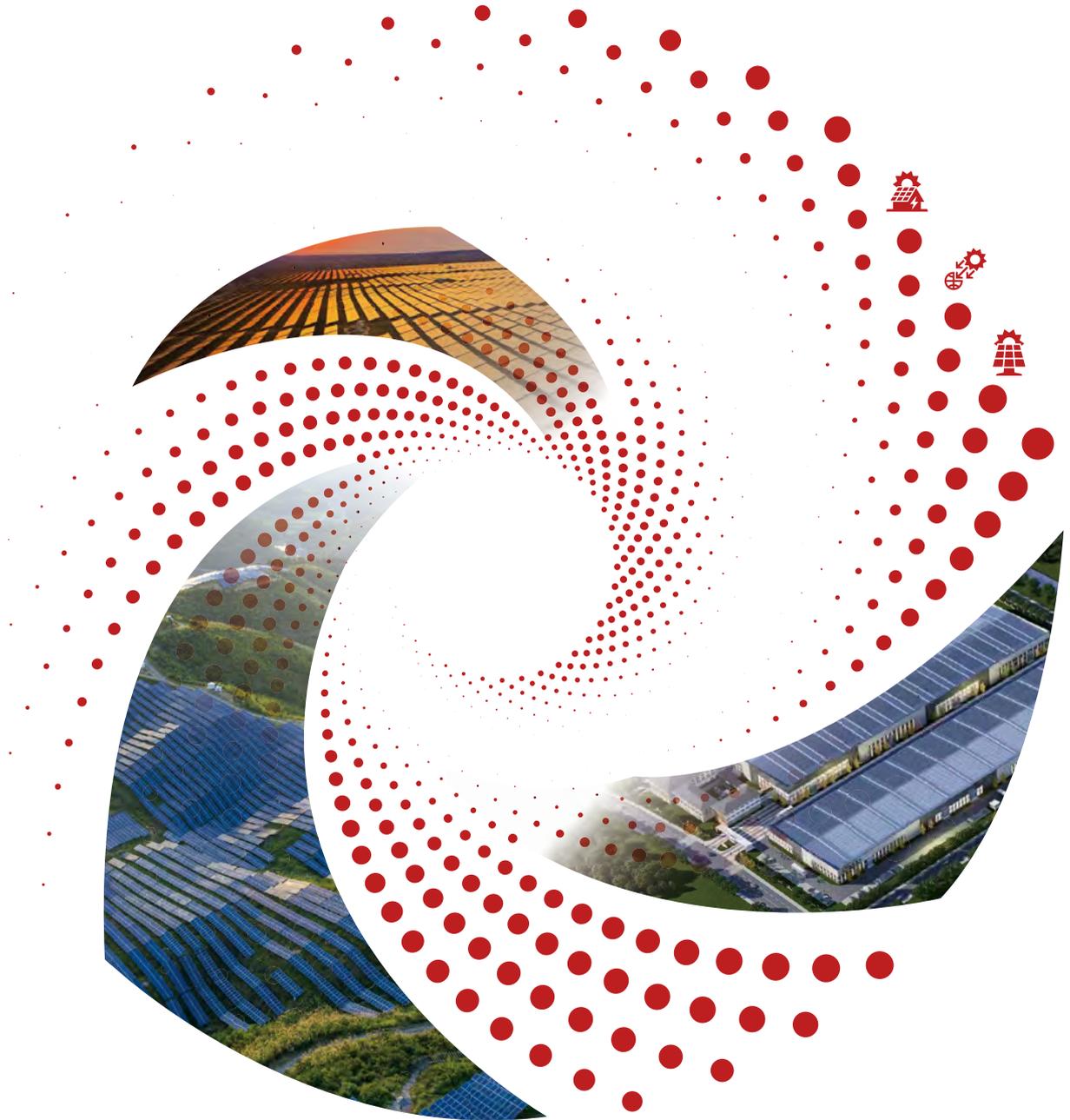




**SUNOVA SOLAR THORNOVA** solar



**2023**

**Sunova/ Thornova Solar**

Environmental, Social and Governance (ESG) Report

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## About this report

This report is the second environmental, social and corporate governance report (hereinafter referred to as the "Report" or "ESG Report") issued by Sunova / Thornova Solar Technology Co., Ltd.(hereinafter referred to as "Sunova/ Thornova Solar", "the Company" or "we", "us" or "our"). Adhering to the principles of truthfulness, accuracy and completeness, this report elaborates on the practical actions and performance of Sunova/ Thornova Solar and its subsidiaries in protecting the environment, safeguarding the rights and interests of employees, and optimizing corporate governance in 2023, aiming to enhance communication with stakeholders and jointly promote sustainable development. We sought technical advice from TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch on identifying stakeholders and material issues, determining reporting boundaries, and collecting and collating relevant information.

### Reporting Boundaries

This report covers the period from January 1, 2023 to December 31, 2023. In order to strengthen the completeness of the disclosure, some of the content is outside the aforementioned time frame. Unless otherwise stated, this report is disclosed by Sunova/ Thornova Solar, and the relevant chapters cover Sunova/ Thornova Solar and its subsidiaries.

Production Base <sup>1</sup>	Reference
Building E and Building H, Phase II of Standard Plant, Runzhou Road, Huishan Industrial Transformation Cluster, Wuxi, Jiangsu Province	Wuxi Factory (Sunova/ Thornova Solar Technology Co., Ltd.)
Factory No. 1 and No. 2 Lot (VI) VI-1.2, N1 road intersects with D2 road, Que Vo II Industrial Park, Ngoc Xa Commune, Que Vo District, Bac Ninh Province, Vietnam	Southeast Asia Factory (THORNOVA SOLAR VIET NAM COMPANY LIMITED)
No. 2, Taiping East Road, Gusong Town, Xingwen County, Yibin City, Sichuan Province	Yibin Factory

### Reporting Standards

#### In accordance with

- Global Reporting Initiative 《GRI Sustainability Reporting Standards》 (GRI Standards )
- United Nations 2030 Sustainable Development Goals (SDGs 2030)
- The Ten Principles of the UN Global Compact (UNGC 10 Principles)

#### With reference

- Sustainability Accounting Standards Board (SASB) Sustainability Accounting Standards – Solar Technology & Project Developers

<sup>1</sup>During the reporting period, the Yibin factory was not fully disclosed in this report because it was still in the construction period of the project and had not been officially put into operation.

### Data Source

The information and data disclosed in this report are derived from the internal official documents, statistical reports and periodic reports of Sunova/ Thornova Solar and its subsidiaries. Unless otherwise indicated, the financial information in this report is presented in CNY.

### Report Statement

The contents of this report have been reviewed by the board of directors and confirmed that there are no false records, misleading statements or material omissions.

### Report Acquisition and Response

The Chinese and English versions of this report are available for download on the Company's website (www.sunova-solar.com).

If you have any suggestions or comments on this report, please contact us:

 Contact: Miao Bofeng

 Phone: 86 18800573614

 Email: bofeng.miao@sunova-solar.com



## Message from Chairman

### Hello everyone!

Today, we are gathered together to witness a new chapter in the photovoltaic industry. Here, on behalf of the board of directors of the company, I would like to express my heartfelt thanks and high respect to all the leaders, partners and all employees who have cared for and supported our development for a long time! As an important part of clean energy, the photovoltaic industry is of great significance for promoting the transformation of the global energy structure and responding to climate change. In recent years, with the continuous progress of technology and the continuous reduction of costs, the photovoltaic industry has ushered in unprecedented development opportunities. As a leader in the industry, our company has always adhered to innovation-driven, continuously improved the technical level and product quality, and made positive contributions to the rapid development of the industry.

Looking back, we have achieved remarkable results. Our photovoltaic products have been widely used in domestic and foreign markets, and have won the trust and praise of our customers. At the same time, we also actively fulfill our social responsibilities, promote the development of green energy, and contribute to the protection of the environment and the promotion of sustainable development.

We look to the future with confidence. With the growing global demand for energy and the increasing awareness of environmental protection, the prospect of the PV industry will be even broader. And we will continue to development and launch more competitive PV products to meet market demand. At the same time, we will also strengthen the cooperation with domestic and foreign partners to jointly promote the healthy development of the photovoltaic industry, and I would like to express my special thanks to all of our employees. It is their hard work and selfless dedication that has enabled the company to achieve today's success. In the future, we will continue to provide our employees with better development platforms and benefits, so that every employee can realise his or her value here.

Finally, I would like to thank all the guests, partners and employees for their support and trust. Let us work together to create a brilliant future for the PV industry! Let's work together to create a brilliant future for the PV industry!

### Thank you!

**Mike Song**  
Chairman

# Getting to Know Sunova/ Thornova Solar

## Company Overview

Sunova/ Thornova Solar is a provider of integrated solutions focused on the R&D and manufacturing of global distributed photovoltaic products and the development of distributed power stations.

Currently, Sunova/ Thornova Solar has three major component production bases in China and Vietnam, with a future global component capacity totaling **5.5 GW**. Simultaneously, Sunova/ Thornova Solar has established branches in Germany, Brazil, Poland, the Netherlands, Vietnam, and other overseas countries and regions, and has over 100 leading industry partners in more than **20** countries and regions worldwide. As of the end of 2023, Sunova/ Thornova Solar's cumulative shipments exceeded **3.8 GW**.

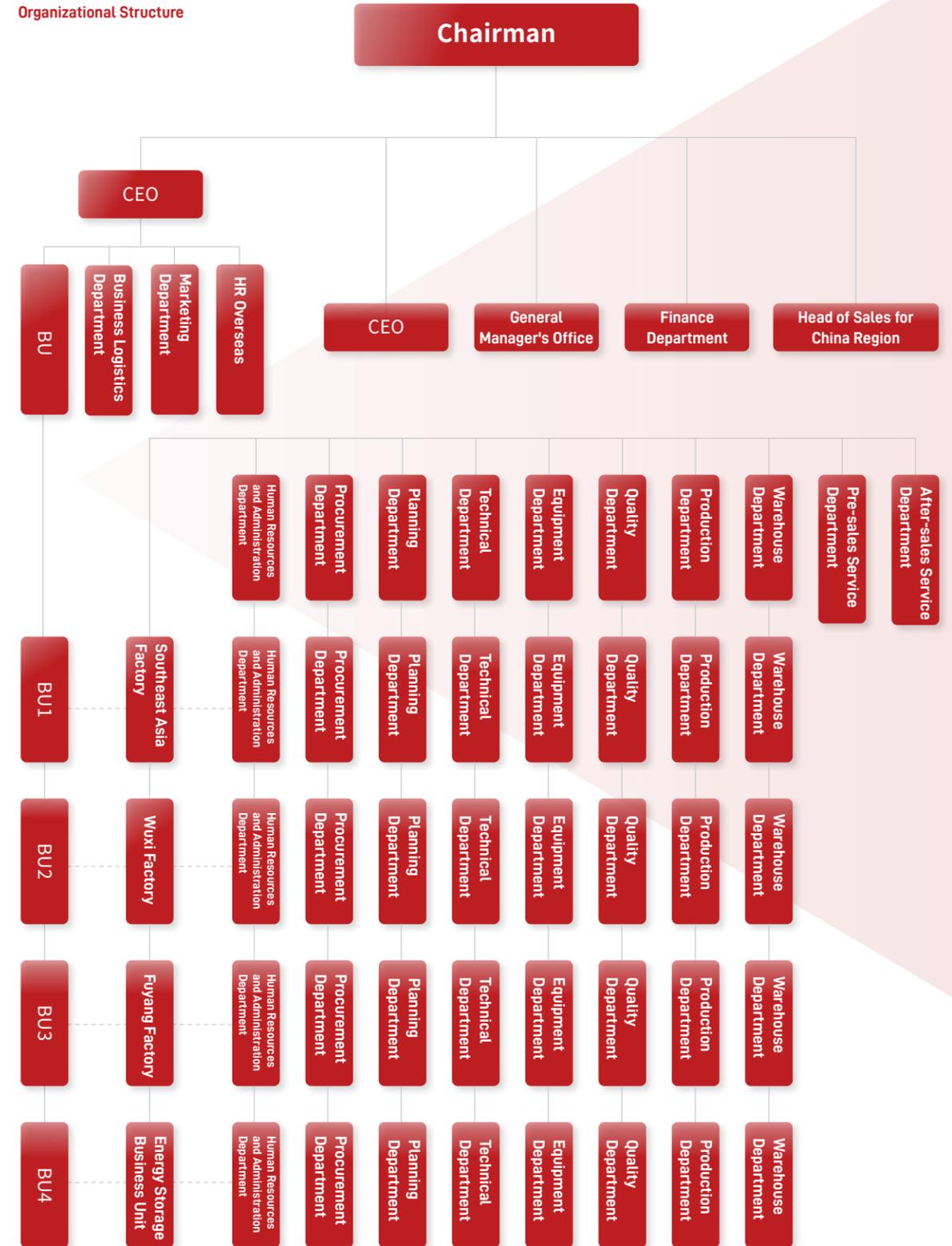
As a photovoltaic supplier, we adhere to pioneering and enterprising principles, keeping pace with industry and era developments, continuously expanding and establishing new production bases to provide greener, safer, and more efficient system solutions for customers. Facing the challenges of the new economy, the company upholds the brand philosophy of "everything for the customer, for the customer's everything," innovates and develops, and as always, wholeheartedly provides high-quality products to new and old customers at home and abroad, striving to create a better future for the enterprise.

**【Responsibility】**  
Environmentally friendly,  
zero carbon emissions

**【Trust】**  
Putting people first, offering a fair,  
safe and enriching work environment

**【Accountability】**  
Strengthening corporate governance,  
honoring sustainable development

Organizational Structure



**Economic Performance**

Indicators	2021	2022	2023	Unit
• Revenue	605,420,390.99	2,229,767,999.91	2,335,177,595.46	CNY
• Operating Costs	536,706,973.96	2,052,112,391.89	2,022,279,953.57	CNY
• Employee Wages and Benefits	14,130,185.52	26,077,951.07	60,082,321.15	CNY
• Payments to Providers of Capital	0	0	0	CNY
• Payments to Government through Country and Community Investments	0	0	0	CNY



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**Core Values**

Our vision is to become a dedicated market player in distributed PV plants by building Sunova/ Thornova Solar into a leading one-stop technical solutions provider globally. We are committed to fair and socially responsible working standards and are working towards carbon neutrality as we aim to becoming the world's leading green energy supplier in the PV business.

# Vision

# Mission

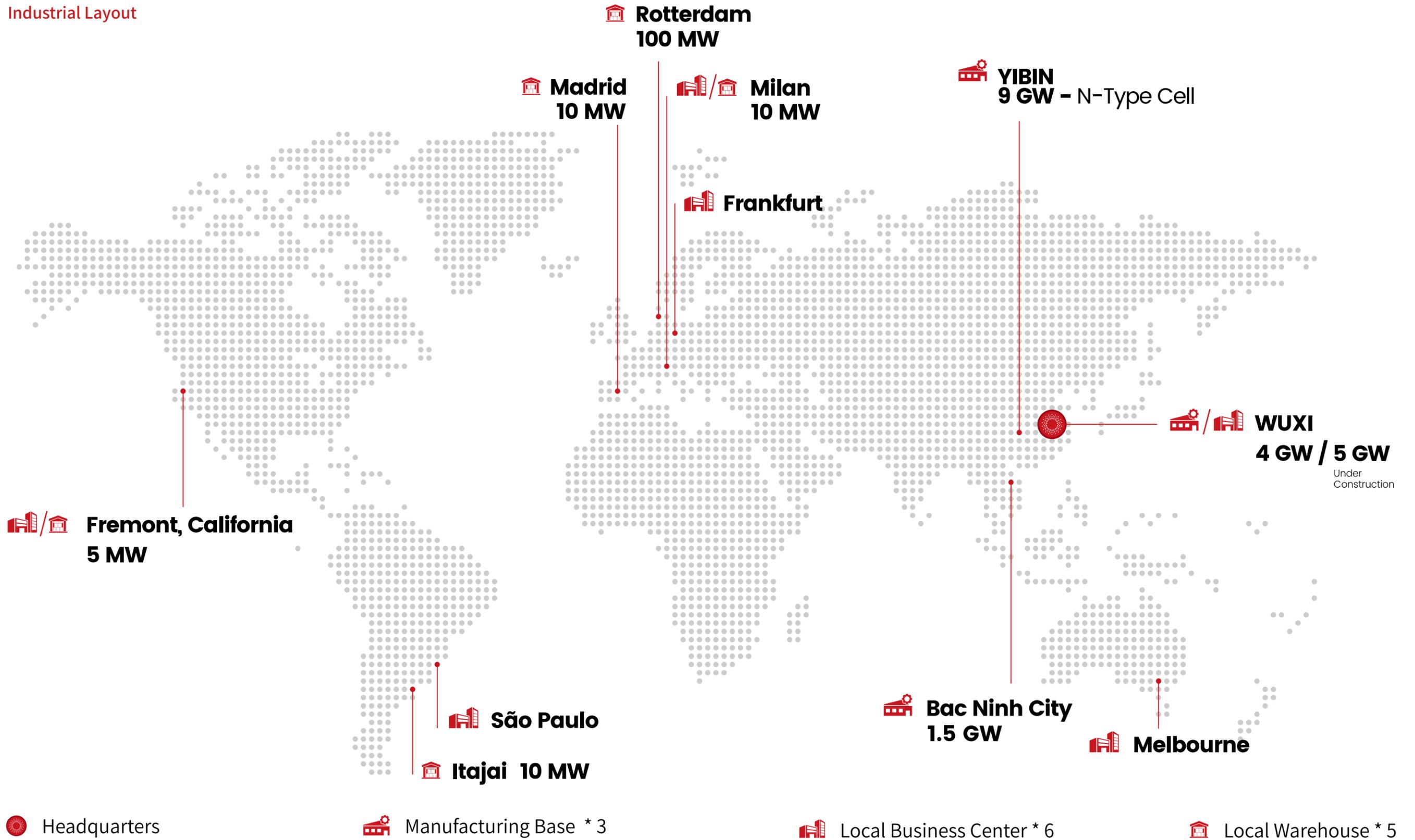
We aim to become the most user-centric energy enterprise.

**Main Products**

Sunova/ Thornova Solar provides high-efficiency, high-quality solar photovoltaic modules, including the Zosma series with PERC technology and the Tangra series with N-type TOPCon technology. Both series offer single-glass and double-glass photovoltaic modules, covering three different size categories. These products are suitable for various scenarios, including residential rooftops, commercial rooftops, ground power stations, and large-scale ground power stations.



### Industrial Layout



## Memberships and Certificates

### Memberships

United Nations Global Compact Signatory Member	Brazil Greener Member
Asociación Chilena de Energía Solar AG. (ACESOL) Member	Spanish Solar PV Association(UNEF)Member
Solar Energy Industries Association (SEIA) Member	Africa Solar Industry Association Member (AFSIA) Member
Associação Brasileira de Geração Distribuída Member	China Renewable Energy Council (Wuxi) Director Unit

### Honor

<p><b>Selected as Brazil's TOP10 photovoltaic module imports in 2022</b></p> <p>ranked 7th</p> <p>Greener</p>	<p><b>Selected as the TOP10 most popular PV module manufacturer brands in Brazil in 2022</b></p> <p>ranked 5th</p> <p>Greener</p>
<p><b>Tier 1 criteria global PV module manufacturers of Q2 2024</b></p> <p>Bloomberg New Energy Finance (BNEF)</p>	<p><b>CCC ranking in Q1 2024 PV ModuleTech Bankability Ratings</b></p> <p>PV Tech</p>

### System Development

		
ISO 9001	ISO 14001	ISO 45001

### Southeast Asia Factory

					
ISO 9001	ISO 14001	ISO 45001	ISO 50001	IEC 62941	SA8000

### Wuxi Factory

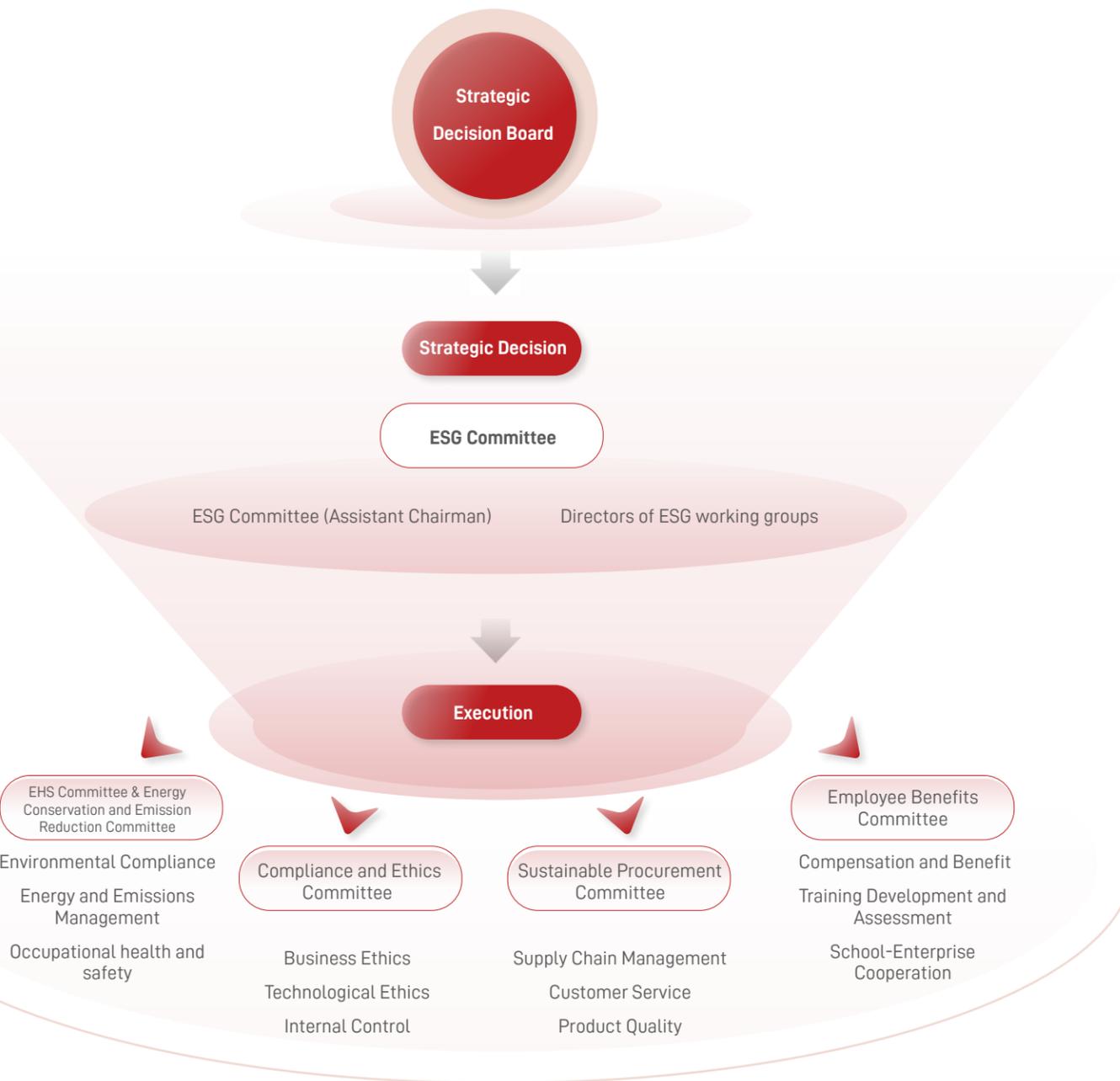


Jiangsu Province Green Factory

# Sustainability Management

## Sustainability Management Framework

Sunova/ Thornova Solar highly agrees with the concept of sustainable development. To cope with the risks and opportunities brought about by climate change, environment, human rights, and changes in the market, We have established a top-down ESG governance structure with clear responsibilities and powers, i.e., Board of Directors - ESG Committee - Specialised Committee on ESG Issues, which strongly promotes the integration of ESG work with corporate operations and enhances the performance of sustainable development management.



## Environmentally friendly



- **0** environmental violations and penalties
- **0** non-renewable raw materials used
- **100%** environmental risk assessments of workplaces
- **556.39** tons of renewable raw materials used
- **CNY 30,000** total investment in energy conservation and environmental protection
- **43.67** tons of recycled material usage



## People oriented



- **1** supplier traceability audit completed
- **393** jobs created
- **100%** of employees signed labor contracts and social insurance coverage rates
- Average staff training hours of **96**
- **CNY 770,000** investment in occupational health and safety
- Charity donation of **CNY 250,000**



## Strengthen governance



- **4** sites that have conducted corruption risk assessments
- **100%** of operations have conducted corruption risk assessments
- **100%** anti-corruption and anti-bribery training rate
- Customer satisfaction **96.5%**
- **75,515,300** investment in R&D
- Obtained **28** patents

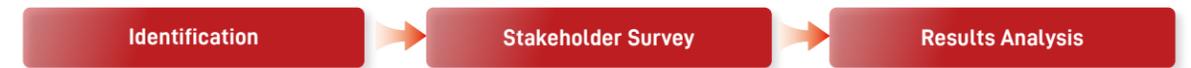


## Stakeholder Communication

We have established a few double-way communication channels and continue to communicate with our stakeholders to understand and respond to their needs and expectations promptly and to use them as a guide for the company's sustainable development efforts. We have established a few double-way communication channels and continue to communicate with our stakeholders to understand and respond to their needs and expectations promptly and to use them as a guide for the company's sustainable development efforts.

Stakeholder	Focused Materiality	Ways of Communication
Shareholders & Creditors	Corporate Governance Business Ethics Internal Control	Information Disclosure Media Communication
Customer	Service Quality Management Product Quality and Safety Creating Green and Low Carbon Products Data Security and Privacy Protection	Online and Offline Communication Exhibitions Satisfaction Survey
Employee	Employee Rights & Benefits Employee Training & Development Occupational Health and Safety Equality, Diversity and Inclusion	Internal Mail Bulletin Board, Suggestion Box Employee Activities Business Unit Communication Meeting Training and Grievance Mechanism
Value Chain Partner	Science and Technology Innovation Product Quality and Safety Supply Chain Management Conflict Sourcing	Offline Visits Supplier Audit Exhibitions Complaint mechanism
Government and Regulators	Corporate Governance Environmental Management Compliance Waste Management Water Management Energy Management Ecological Impact Opportunities in Cleantech	Daily Political Communication Exhibitions
Community (including residents) and Environment	Waste Management Water Management Community Relations Philanthropy Ecological Impact	Media Communications Community Activities Volunteer Programs

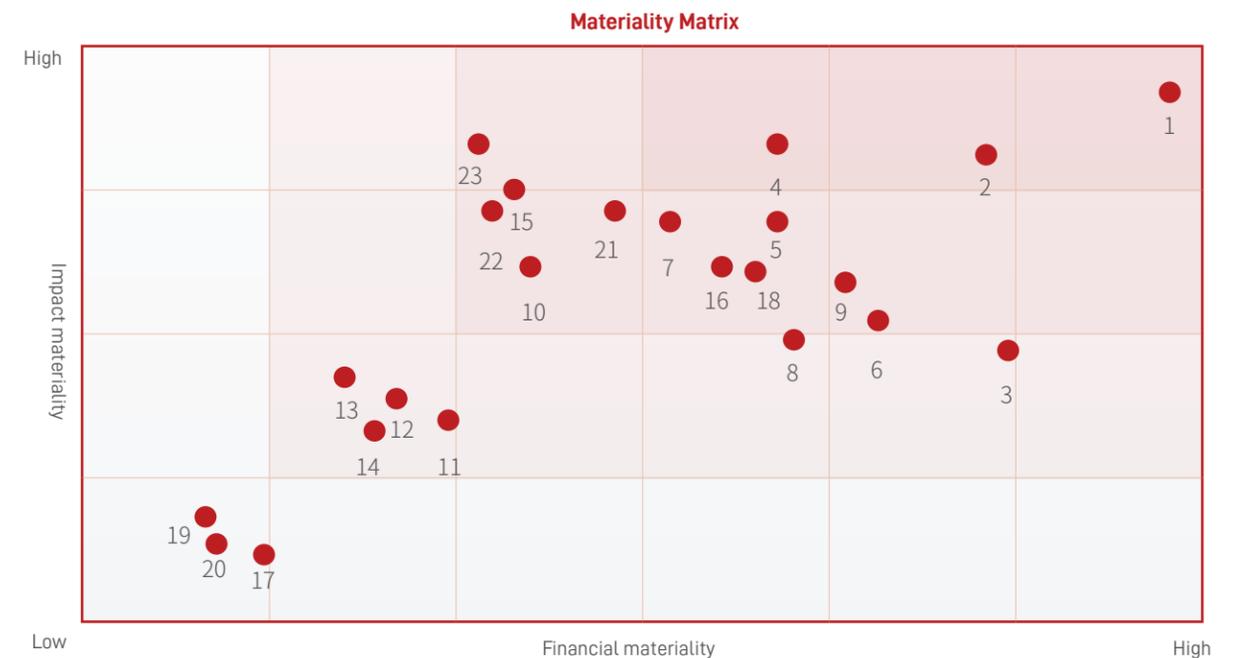
## Materiality Analysis



Concerning the sustainability framework (GRI and SASB), the recommendations of (MSCI), combined with the mission and vision of the company and the best practices of the industry, 23 issues were identified and summarized.

We distributed questionnaires to internal and external stakeholders to understand and communicate their expectations and needs.

In the context of the domestic and international sustainable development trend, and based on the results of the research, experts' suggestions, and judgments, the importance of the material issues was adjusted in accordance with the principle of "double material" (50 percent weighting each)



- |   |  |                                 |
|---|--|---------------------------------|
| 1 Corporate Governance                    | 9 Supply Chain Management                | 17 Ecological Impact            |
| 2 Product Quality and Safety              | 10 Staff Development and Training        | 18 Responding to Climate Change |
| 3 Internal Control                        | 11 Energy Management                     | 19 Community Relations          |
| 4 Science, Technology and Innovation      | 12 Creating Green and Low Carbon Product | 20 Philanthropy                 |
| 5 Service Quality Management              | 13 Opportunities in cleantech            | 21 Conflict Sourcing            |
| 6 Business Ethics                         | 14 Environmental Management Compliance   | 22 Waste Disposal Management    |
| 7 Product Design and Lifecycle Management | 15 Occupational Health and Safety        | 23 Water Management             |
| 8 Data Security and Privacy Protection    | 16 Equality Diversity and Inclusion      |                                 |

# Responsibility

## Environmentally friendly, zero carbon emissions

Practicing environmental protection and green operations is crucial to the sustainable development of Sunova/ Thornova Solar. A robust environmental management system ensures that the company's operations comply with laws and regulations, reduces environmental risks and legal liabilities, and maintains the company's reputation. As a renewable energy company, Sunova/ Thornova Solar plays a key role in addressing climate change by providing low-carbon energy solutions. This not only meets customer demands but also drives business growth.

Moreover, efficient energy resource management and pollution prevention measures reduce production costs and environmental impact. Sustainable management of the product lifecycle optimizes resource utilization, reduces waste and pollutant emissions, and enhances the environmental performance of products. Biodiversity protection maintains the health and stability of ecosystems, ensuring the long-term sustainability of the company's operations.

By actively fulfilling environmental protection responsibilities, the company creates long-term economic and social value, promoting sustainable development in the global market.

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- Strengthening Pollution Prevention and Control ..... 21
- Commitment to the Photovoltaic Industry ..... 22
- Reducing Ecological Impact ..... 23
- Environmental Management Performance ..... 24



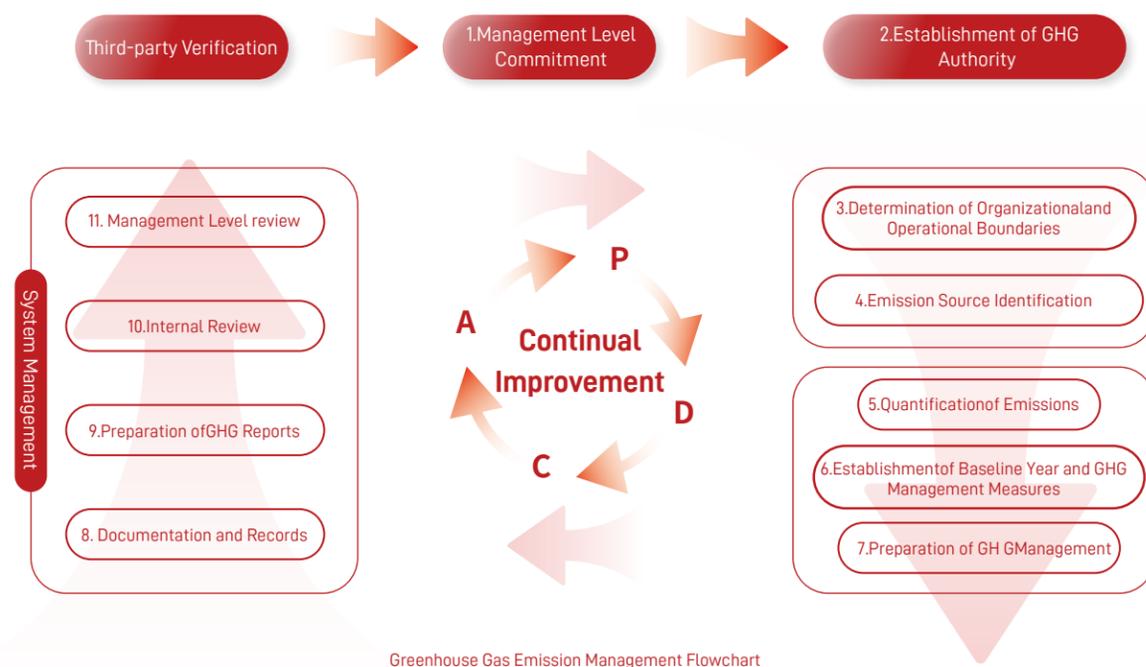
## Compliance and Low-Carbon Operations

Sunova/ Thornova Solar is consistently committed to compliant low-carbon operations. While ensuring environmental management compliance and fulfilling environmental responsibilities, the company actively addresses the challenges and opportunities brought by climate change, continuously improving its management systems to ensure business sustainability.

In terms of environmental management compliance, the company continuously refines its "Integrated Management Manual" in accordance with relevant management system requirements, such as GB/T 24001-2016 "Environmental Management Systems Requirements and Guidelines for Use," to ensure the continuous improvement of its environmental management system and compliance. During the reporting period, the company's two main production bases (Wuxi Factory and Southeast Asia Factory) have

passed ISO 14001 environmental management system certification. In the future, the company will continue to promote environmental management system certification to ensure comprehensive coverage for all new projects and factories. Additionally, Sunova/ Thornova Solar has established a comprehensive mechanism for controlling environmental non-compliance events and environmental emergency plans to respond to environmental emergencies, ensuring timely control and handling of environmental risks.

In addressing climate change, Sunova/ Thornova Solar has formulated the "Carbon Emission Management System" to standardize the management process of greenhouse gas emissions and clarify management responsibilities at all levels. The company actively promotes the quantification of greenhouse gas emissions through activities such as data collection, calculation, report preparation, and internal audits, effectively managing its own greenhouse gas emission quantification work. Furthermore, the company strives to reduce greenhouse gas emissions through initiatives such as waste reduction, energy consumption reduction, and energy-saving and carbon-reduction advocacy, demonstrating the company's proactive stance in addressing climate change.



Furthermore, Sunova/ Thornova Solar actively responds to international standards such as the United Nations Framework Convention on Climate Change and the Kyoto Protocol, deeply promoting the research and production of low-carbon, efficient photovoltaic products. The company firmly believes that by providing efficient solar photovoltaic modules, it can effectively help customers achieve their carbon reduction goals and make a positive contribution to a zero-carbon future for society. In the future, the company will continue to increase investment in low-carbon technologies, promoting the photovoltaic industry towards a more sustainable direction and contributing to the creation of a clean, green future.

## Optimizing Resource Utilization

Sunova Solar has been firmly implementing the decision-making and deployment of the CPC Central Committee and the State Council on the construction of ecological civilization for a long time. It practices the concept of green development and is committed to energy saving, emission reduction and environmental protection. The company continues to focus on the green and low-carbon transformation of the whole process, and has established and continuously improved its energy management system.



Smart Energy Sharing Platform System Interface

In terms of energy conservation, the company upgrades high-efficiency equipment, eliminates outdated equipment, and establishes an intelligent energy-sharing platform to achieve real-time energy control and analysis, enhancing automation levels and optimizing the energy structure. Additionally, the company continues to promote rooftop photovoltaic construction and building energy conservation work. Our lighting system uses energy-saving LED lamps, controlled in zones and groups, making full use of natural light. During the reporting period, all company equipment met national and local energy-saving standards, and regular energy audits were conducted. The Wuxi factory has received the provincial green factory certificate. In the future, the company will continue to commit to green development, continuously improve the energy management system, and achieve efficient and sustainable energy utilization.

In terms of water conservation, the company continuously explores water-saving methods. During the formulation of process flows, the rational use of water is fully considered. The production process adopts circulating water cooling, avoiding one-time water cooling and reducing cooling water losses. Additionally, the company actively uses water-saving sanitary ware and strengthens water management. During the reporting period, the company achieved a water-saving rate of 38.58%.



Transformers and Circulating Water

## Strengthening Pollution Prevention and Control

Sunova/ Thornova Solar attaches great importance to the compliant disposal of waste and the compliant discharge of pollutants. During the reporting period, through a series of management measures and optimized procedures, the company ensured the standardized management of waste and harmful emissions and environmental compliance, continuously strengthening pollution prevention and control and promoting sustainable development.

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honoring sustainable development

### 01 In terms of solid waste management



during the reporting period, the company classified solid waste into hazardous and non-hazardous waste in accordance with relevant laws and regulations. For hazardous waste (such as waste scraps, waste packaging materials, waste activated carbon, and waste packaging barrels), the company entrusted qualified disposal companies for standardized disposal and used a hazardous waste management platform to report and monitor hazardous waste data in real-time. For non-hazardous waste (such as waste copper strips and household garbage), the company handed it over to recycling units or sanitation departments for recycling and transportation. In 2023, the company further optimized the "Waste Management Procedures," clarifying the classification, disposal, and monitoring processes for waste to ensure comprehensive and effective waste management.

### 02 Regarding hazardous exhaust gas emissions management



the company practices the concept of green manufacturing. During the reporting period, the characteristic pollutants produced in the manufacturing process were mainly non-methane total hydrocarbons. The exhaust gas is collected through a gas collection hood, treated by a two-stage activated carbon device, and then discharged through a 15-meter-high exhaust pipe (FQ1), ensuring that all exhaust emissions meet the local comprehensive atmospheric pollutant emission standards. In 2023, the company improved the "Exhaust Pollution Prevention and Control Management Procedures," clarifying the monitoring and treatment processes for exhaust emissions, and strengthened real-time monitoring and compliant management of exhaust emissions.

### 03 In terms of wastewater discharge management



during the reporting period, the company had no production wastewater discharge. Domestic sewage was centrally treated by a sewage treatment plant, meeting the discharge requirements specified in laws, regulations, and standards such as the "Jiangsu Province Taihu Lake Water Pollution Prevention Ordinance" and the "Taihu Lake Basin Management Ordinance."

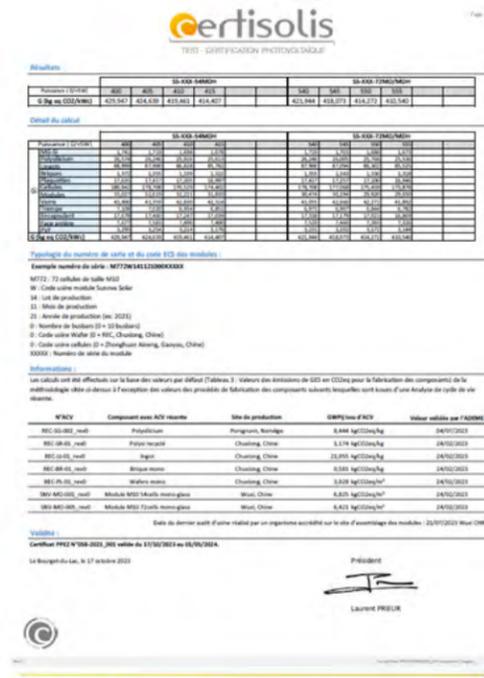
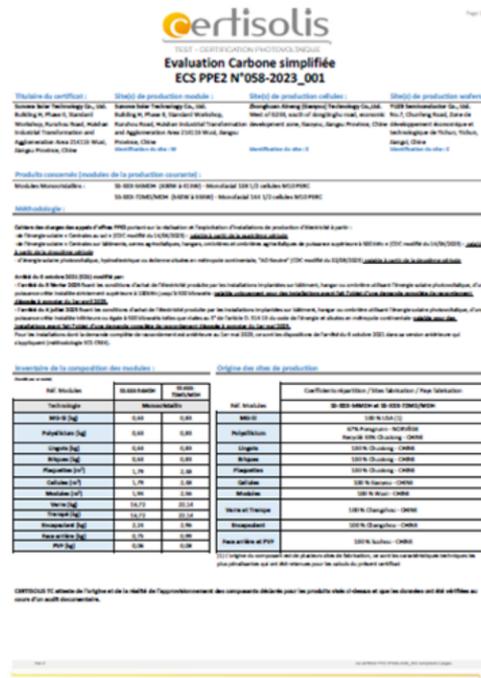
## Commitment to the Photovoltaic Industry

Sunova/ Thornova Solar is continuously committed to sustainable product design, integrating environmental protection with commercial development. In product design, the company focuses on ecological design, promotes green supply chain management, and has established a green factory management system. Regarding material usage and product design, during the reporting period, the company adjusted the amount of raw silicone used, which not only saved costs but also reduced VOC emissions.

In the manufacturing stage, the company employs energy-saving equipment that meets the energy-saving requirements of general equipment, conducts energy management system reviews, and phases out outdated equipment to save energy and reduce the environmental footprint of its products.

In the product transportation stage, the company has replaced wooden pallets with reusable iron pallets, increasing the number of packaging material cycles and reducing resource waste.

In the product end-of-life recycling stage, the company's products have obtained the WEEE label, ensuring compliant recycling and minimizing the environmental impact of waste. Additionally, the company's PERC series of single and double-glass photovoltaic modules have passed the French ECS carbon footprint certification, further demonstrating the company's leading strength in green and low-carbon manufacturing. This provides strong support for the company to expand more broadly in the market.



ECS Carbon Footprint Certificate

## Reducing Ecological Impact

Sunova/ Thornova Solar always adheres to the concept of harmonious coexistence with nature and strictly abides by ecological red lines. In project development, construction, and operation activities, the company is committed to promoting ecological environment and biodiversity protection. During the reporting period, the company conducted an in-depth analysis of the photovoltaic module industry's impact on biodiversity, including land occupation and alteration, vegetation destruction and loss, water resource consumption and impact, light pollution and ecological interference, potential threats of electromagnetic radiation, challenges in handling discarded modules, and the damage to ecosystem stability.

In the conclusion section, the company emphasized the importance of taking a series of eco-friendly measures to mitigate these impacts. These measures include selecting suitable sites, optimizing land use methods, reducing vegetation destruction, conserving water resources, reducing light pollution and electromagnetic radiation, and strengthening the recycling and disposal technology development for discarded modules. Through these efforts, the company is committed to achieving the sustainable development of the photovoltaic industry and harmonious coexistence with nature.

**[Responsibility]**  
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honoring sustainable development

## Environmental Management Performance

Indicators	2021	2022	2023	Unit
Environmental Violations and Penalty Incidents	0	0	0	Cases
Proportion of Workplaces Conducting Environmental Risk Assessments	100%	100%	100%	%
Total Investment in Energy Conservation and Environmental Protection	5,000	15,000	30,000	CNY
Duration of Environmental Protection Training	8	15	30	Hours
Number of Participants in Environmental Protection Training	8	39	50	Person-times
Non-Renewable Energy (Diesel) Consumption	1,917	5,753	6,770	L
Total Non-Renewable Energy (Purchased Electricity) Consumption	2,198,140	10,954,233	12,891,797	kW-h
Total Water Withdrawal	516	1,548	5,524.4	t
Total Water Discharge	400	1,200	1,241.9	t
Total Water Consumption	116	348	4,282.5	t
Hazardous Waste Discharge	10.42	31.2	47.1	t
Non-Hazardous Waste Discharge	7.65	30.6	112.2	t
Hazardous Air Emissions	/	0.23	159.3	t
Scope 1 Greenhouse Gas Emissions	/	92.33	138.73	tCO <sub>2</sub> e
Scope 2 Greenhouse Gas Emissions	/	7,706.30	11,579.36	tCO <sub>2</sub> e
Packaging Material Usage	/	23,363	35105	Items
Non-Renewable Raw Material Usage	/	0	0	t
Renewable Raw Material Usage	/	370.29	556.39	t
Recycled Material Usage	/	/	43.67	t
Recycled Glass	/	/	5,952	kg
Recycled Aluminum	/	/	1,244	kg
Recycled Silicon	/	/	36,367.1609	kg
Other Recycled Metals	/	/	104.7	kg
Number of Operational Sites Owned, Leased, or Managed in or Adjacent to Protected Areas and Areas of High Biodiversity Outside Protected Areas	0	0	0	Items

# Trust

## Putting people first, offering a fair, safe and enriching work environment

Businesses around the world are challenged to reduce supply chain uncertainty, including compliance risks, tariff restrictions, supply chain disruptions, and more. As a new energy enterprise with "Made in China, Global Sales", reducing costs and increasing efficiency, improving enterprise flexibility and agility are the primary issues facing Sunova/ Thornova Solar. To this end, we continue to deepen cooperation with existing suppliers and further accelerate the expansion of overseas production capacity to ensure diversified development.

Talent is our precious asset. Reducing employee safety risks in production, improving personnel capacity building, and protecting the legitimate rights and interests of employees are important tasks that we have focused on for a long time. As a corporate citizen, Sunova/ Thornova Solar not only pays attention to its own development, but also actively shares the fruits of enterprise development with employees, and accelerates the release of talent dividends by creating a corporate culture of equality, inclusiveness and mutual trust, and works with partners for a win-win situation.

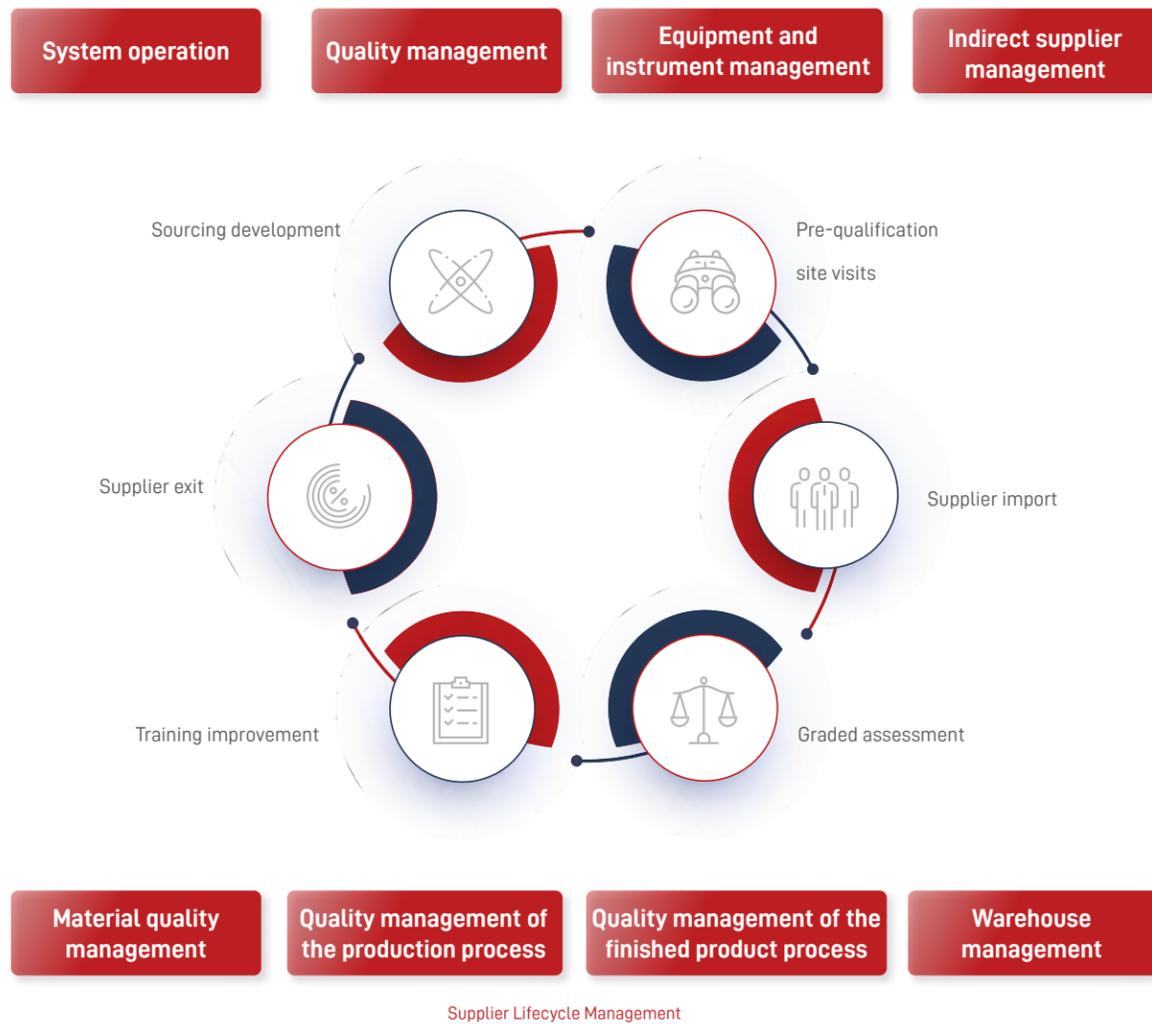
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## Responsible Procurement

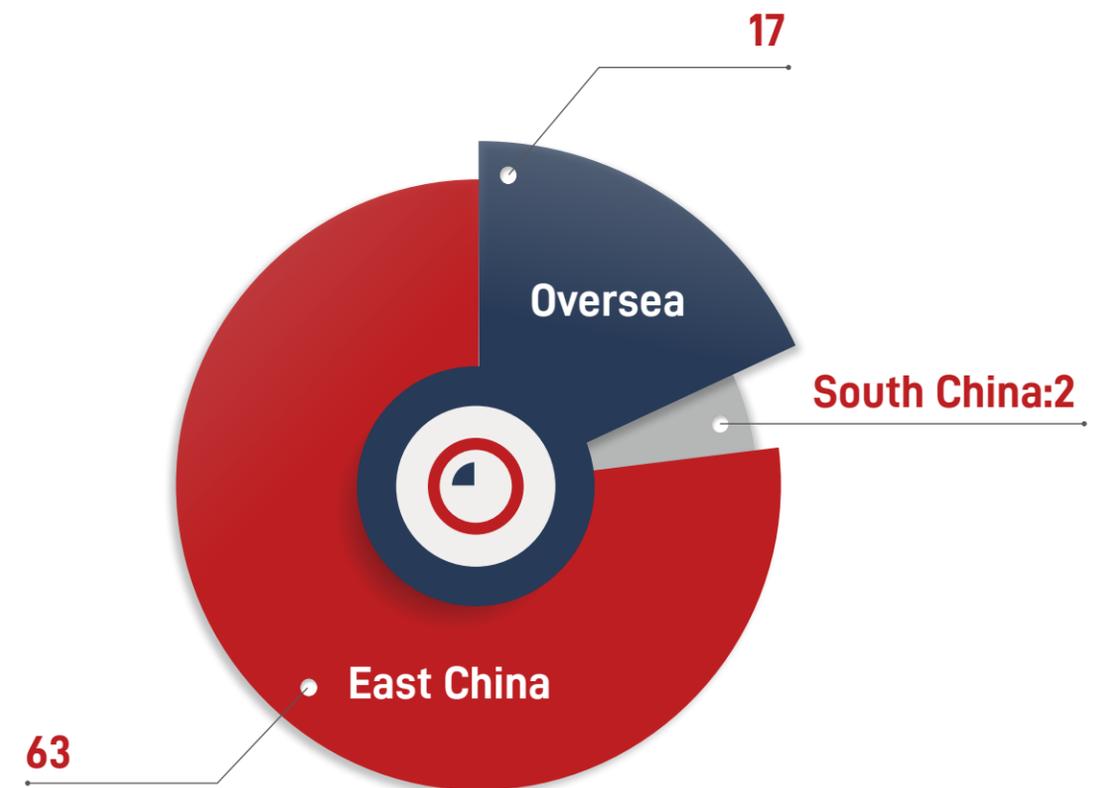
Building a responsible supply chain is an important factor for Sunova/ Thornova Solar to consolidate its sustainable development, and establishing synergistic and mutually beneficial cooperative relationships with suppliers is also the key to the company's steady development. The company strictly implements the "Supplier Management Procedures" and "Identification and Traceability Management

Procedures", sets up a hierarchical management mechanism for suppliers, establishes a standardized management process in the development, introduction, audit and evaluation, exit and other links, and continuously improves the closed-loop management and visual performance tracking of the whole life cycle of suppliers. At the same time, we practice the principles of green procurement, use environmental and social standards to carry out supplier evaluation, protect the rights and interests of relevant parties in the supply chain, and jointly build a harmonious market operating environment and pursue win-win development. During the reporting period, the company responded to customer needs, completed the traceability audit of 1 supplier, without any serious non-conformities.



## Address Supply Chain Risks

For the risks that we may face such as procurement price, procurement quality, material arrival and supply interruption, we have effectively controlled the risks within an acceptable range through a number of measures such as multi-channel procurement, supplier due diligence, monitoring of safety stock levels, and strengthening supplier communication. On the premise of satisfying delivery, we give preference to local suppliers to shorten the delivery cycle and reduce the environmental impact of transportation. During the reporting period, the proportion of localized procurement reached 59.84%.



We also attach great importance to preventing ESG risks of suppliers, continue to select and evaluate suppliers through environmental and social standards, as well as strengthen the delivery quality and social responsibility management of suppliers. We conduct on-site audits of direct suppliers every year, and provides follow-up actions based on the assessment results. In 2023, we refined the "Supplier Code of Conduct" and require all new suppliers to sign it, clarifying the company's requirements and expectations for suppliers in terms of human rights protection, reasonable remuneration, fair treatment, freedom of association, environmental compliance, and business ethics. In addition, we extended corporate social responsibility management to indirect suppliers, unblocked reporting channels, encouraged suppliers' employees to feedback the clues of violations, and promised to protect the legitimate rights and interests of whistleblowers, and take corresponding punishment measures against suppliers with violations to reduce supply chain risks.

### Key elements of the Supplier Code of Conduct

- Comply with national and local laws and regulations and applicable requirements
- Respect for individual dignity, privacy, and other rights, anti-forced labor, and anti-discrimination
- Eliminate the use of child labor, prison labor or slave labor, and reasonably protect adolescent workers and pregnant women workers
- Pay wages fairly and provide benefits to all employees
- Respect the formation of employees and join trade unions in industry organizations
- Provide a safe and healthy work environment
- Conduct business in a business ethical manner
- Implement business continuity plans to mitigate the risk of terrorism, crime, commercial threats, infectious diseases, natural disasters and related major accidents
- Ensure that subcontractors meet the above guidelines

## Protect the Rights and Interests of Employees

Sunova/ Thornova Solar respects and protects the rights and interests of all workers, adheres to the concept of "people-oriented" to attract, retain and educate talents, cares about the physical and mental health of employees, continuously improves employees' sense of belonging, and works with every employee to create a better future. In accordance with the "Labor Law of the People's Republic of China", "Personal Information Protection Law of the People's Republic of China", "Provisions on the Special Protection of Juvenile Workers" and other laws and regulations of the place where it operates, and in response to the "Universal Declaration of Human Rights", "International Labor Organization Convention" and SA8000 and other international initiatives and system standards, the company has formulated the "Employee Handbook", "SA8000:2014 Social Responsibility Procedure Document" and other management systems to provide occupational health and safety related to the vital interests of employees, training and development, working conditions and time and other contents to make detailed arrangements and explanations, to create an equal respect, open and civilized employment environment, so that employees have the opportunity to become a better version of themselves. We provide at least 30 days' notice to potentially affected parties before implementing significant operational changes that could materially impact employees and their representatives. During the reporting period, the Wuxi Factory passed the SA8000 social responsibility management system certification to ensure that the compliance requirements of the SA8000 system cover the whole process of employee recruitment, in-service and resignation. At the same time, we regularly review the social security payment and salary payment of employees by labour dispatchers to effectively protect the legitimate rights and interests of employees.

### Equality

- We fully recognize and accept individual differences, fairly treat employees of different gender, age, family status, belief, sexual orientation, ethnicity, race and nationality, and adhere to the principle of fairness and justice to handle employment, job transfer, promotion, training, salary, retirement and other affairs.
- The proportion of female employees increased, and the proportion of ethnic minorities increased. There is zero tolerance for any form of workplace discrimination.
- There is zero tolerance for any form of workplace discrimination.

### Inclusion

- Establish multi-dimensional bilateral communication channels, encourage employees to express their suggestions and opinions, and listen to their voices.
- The human resources department regularly visits the production line to observe the working conditions of employees and collect their demands.

### Respect

- We oppose the use of child labor, forced labor, prison labor, and slave labor, and we also refuse to cooperate with suppliers who have forced or compulsory labor, and do not threaten workers with unfavorable treatment such as withholding labor identity documents, paying compulsory deposits, and terminating workers.
- We do not use physical punishment or psychological or physical pressure on our employees for making mistakes, and we will not use verbal abuse.
- We remain open for job transfers throughout the year to meet the personalized development of employees.

- The total number of employees reached **393** **.100** % of employees signed labor contracts
- The number of new employees reached **258** **.100** % social insurance coverage rate for employees

Employee Communication



New Employee  
Onboarding Interviews



Regular Discussions



Suggestion Box



DingTalk



Training

Employee rights and benefits

- Adhere to the principle of "equal pay for equal work" and "distribution according to work"
  - Optimize basic wage and variable salary regularly with reference to the minimum wage level, market research and business efficiency of the operation place
  - Set up individual performance appraisal and adjust salary for position or performance
  - Salary composition: basic salary (basic wage + post salary), full attendance bonus, night shift subsidy, performance salary, welfare
  - Housing fund, statutory holidays, paid parental leave, high temperature subsidies, etc
  - Commercial insurance, working meals, health checkup, team activities, holiday benefits, retirement bonus, birthday party, afternoon tea, etc
- Reasonable salary**
- Statutory benefits**
- Additional welfare**



Festivals and Events



Team Activities



Team Activities



Team Activities



Annual Meeting Ceremony



Birthday Party



Departmental activities



Employee Appreciation Ceremony

## Promoting Employee Development

Sunova/ Thornova Solar focuses on talent cultivation and capacity building, and supports the career development needs of employees through training, transfer, internal promotion, etc., providing development opportunities for employees in different positions and stimulating the value creativity of employees. Every year, we provide internship positions for colleges and universities, and implement the "mentor-apprentice system" to guide interns to adapt to the workplace life and gain practical experience to grow up as soon as possible.

The human resources department formulates an annual training plan with reference to the "Training Management Procedures" and invites managers, technical engineers and external lecturers to carry out internal training or centralised lectures for the staff, providing them with a variety of thematic counselling courses, so as to optimise the talent structure. Senior managers receive annual performance appraisals of their management skills, including indicators of team building, personnel training, and service efficiency; ordinary employees receive annual job skills appraisals and career development appraisals in order to oversee the construction of the talent team. In 2023, 390 employees participated in performance appraisals, accounting for 99.2% of all employees.

### Training System

#### New Employee Development

Induction Training: company profile, corporate culture, employee handbook, company product knowledge, company business; conducted within 1 month of employee joining

Pre-employment training: departmental responsibilities, business knowledge, operating instructions, safe operating procedures; completed within 1 month of the employee's arrival at work

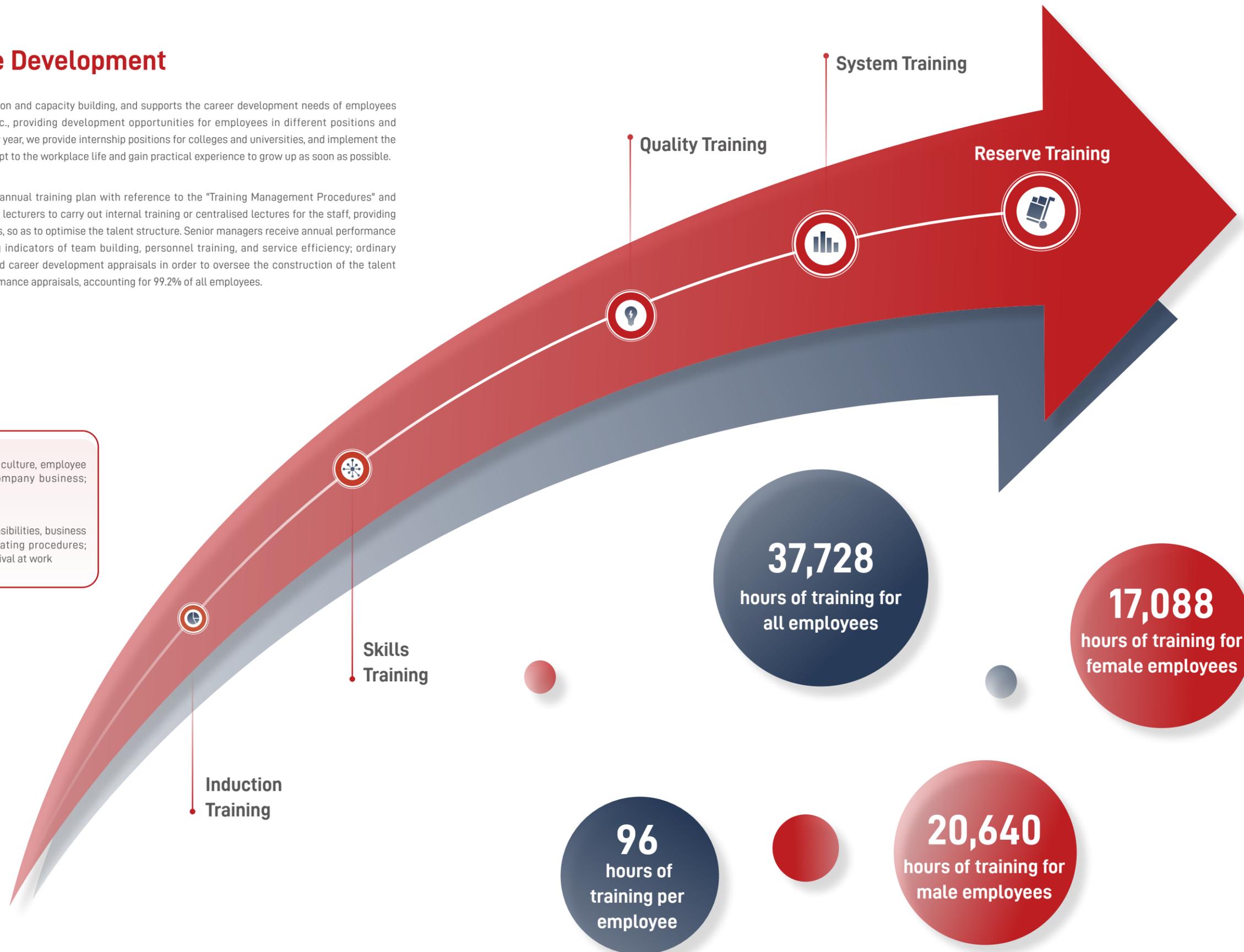
#### Talent Empowerment

Off-the-job training

On-the-job training

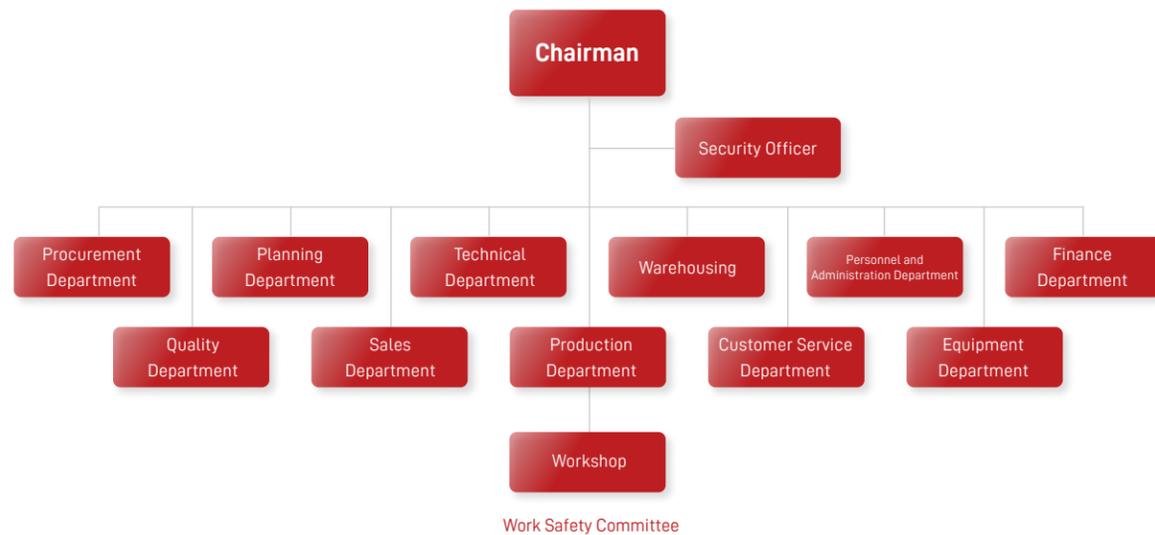
Successor training

After-sales service personnel training



## Guarding occupational health and safety

Sunova/ Thornova Solar implements the national laws and regulations on occupational health management and occupational disease prevention and control, always adheres to the production safety policy of "Safety First, Prevention First, Comprehensive Treatment", formulates the production safety management system covering the whole staff, and formulates the "Environment, Occupational Health and Safety Operation and Control Procedures", "Emergency Response Plan for Production Safety Accidents" and other normative documents, such as the "Management System for Identification of Dangerous Sources, Risk Evaluation and Risk Control". At present, both Wuxi and Southeast Asia Factory have passed ISO 45001 Occupational Health and Safety System Certification.



We have set up production safety committees in each plant, established a thorough occupational health and safety management system, and organised the signing of the "Work Safety Target Responsibility Letter" by the main responsible person every year, linking the work safety target with the performance, rewards and punishments of senior management, department managers, safety officers and other key positions to ensure that the responsibility is assigned to the person and the management to the post. In addition, we encourage all staff to participate in the identification and assessment of risk sources, and to report exposed hidden problems in a timely manner to help the Company form a closed loop of rectification. During the reporting period, all the production safety management was in place and no general or above production safety accidents occurred.



Emergency Drills

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zero carbon emissions

**【Trust】**  
Putting people first, offering a fair,  
safe and enriching work environment

**【Accountability】**  
Strengthening corporate governance,  
honoring sustainable development

Safety Production Target	Result
1 Zero fatalities and serious injuries	Completed
2 Zero major fire accidents	Completed
3 Zero incidence of "three offences"	Completed
4 Zero occupational diseases	Completed
5 100% identification and control of hazardous sources according to requirements	Completed
6 100% of employees' safety education and training rate	Completed
7 100% of safety investment funds in place	Completed
8 100% pass rate of rectification of hidden dangers of general accidents	Completed
9 100% passing rate of special equipment testing and 100% rate of special equipment work permit holders on duty	Completed
10 100% qualified use rate of labour supplies	Completed

We conduct annual employee occupational health and safety inspections to continuously monitor the health of our employees; we commission the third-party agency to carry out testing and evaluation of occupational disease hazards every year, and inform our employees of occupational hazards and their consequences through notification boards and warning labels; we provide our employees with labour protection equipment that meets the requirements of the national standards according to different hazards, and we regularly test the condition of the equipment to deal with potential hidden dangers. Moreover, the company implements risk evaluation and hierarchical control, pays attention to safety risk issues in the production process and implements risk control measures; promotes the construction of safety culture, organises regular safety training and education, emergency safety plan drills, and continuously improves the health and safety awareness of employees.



Fire Safety Drills

In 2023,

• CNY **770,000** invested in occupational health and safety, **100%** coverage of pre-employment and in-service occupational health examinations, and **100%** pass rate

• **500** hidden dangers found and rectified

• Conducted **180** safety training sessions, totalling **360** hours and **7,200** person-times.

• Organised **8** emergency drills

## Sharing Development Dividends

Sunova/ Thornova Solar actively responds to the call of the state, practices the principle of mutual benefit and win-win situation, and supports the development of social events such as poverty alleviation, schooling, and relief of social hardship, demonstrating the sense of corporate social responsibility. We maintain good communication with the parks and neighbouring communities where our new construction projects are located, consult and communicate with stakeholders at the early stage of the projects to minimise the negative impacts generated by the projects, and help local construction as much as we can. During the reporting period, there were no identified incidents of violations involving the rights of indigenous peoples.

### Supporting Education

Education lays the foundation for the future of the society. In May 2023, Sunova/ Thornova Solar donated CNY 250,000 to foreign language students of Jiangnan University to support the development of the college. By the end of the reporting period, the donation project has benefited more than two thousand people.



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## Social Governance Performance

### Supply Chain Management

Indicator	2021	2022	2023	Unit
New Suppliers	6	5	20	Company
Cooperative Suppliers	20	57	61	Company
Suppliers who receive anti-corruption training	10	30	50	Company
Number of incidents of termination of cooperation with suppliers due to corruption	0	0	0	Incident
Suppliers Conducting Social and Environmental Assessments	6	6	21	Company
Identification of suppliers with environmental and/or negative impacts	0	0	0	Company
Proportion of procurement budget spent to suppliers in Jiangsu Province	59.13	61.71	59.84	%

### Employment Management

Indicator	2021	2022	2023	Unit	
Total Number of Employees	43	201	393	Person	
By Gender	Male	115	215	Person	
	Female	18	86	178	Person
By Age	Under 30 Years Old	8	69	186	Person
	30-50 Years Old	30	122	203	Person
	Over 50 Years Old	5	10	4	Person
By Ethnicity	Han	43	194	370	Person
	Minority	0	7	23	Person
By Location	Employees in China	43	191	356	Person
	Overseas Employees	0	10	37	Person
By Rank	Member of the Governing Body	1	2	3	Person
	Non-member of the Governing Body	42	199	390	Person

Indicator		2021	2022	2023	Unit
Diversity of Employees	Disabled Employees	0	0	0	Person
	Litigious Discrimination Cases	0	0	0	Incident
	Litigious Discrimination Cases	0	0	0	Incident
Local Employment	Number of Senior Management	6	10	15	Person
	Senior Management Hired from the local community <sup>2</sup>	1	3	5	Person
	Proportion of senior management hired from the local community	16.67	30	33.33	%

<sup>2</sup>Refers to individuals with Jiangsu household registration

#### Recruitment Management

Indicator		2021	2022	2023	Unit
New Employess		/	/	258	Person
Hiring Rate		/	/	65.65	%
By Gender	Male	/	/	144	Person
	Female	/	/	114	Person
By Age	Under 30 Years Old	/	/	149	Person
	30-50 Years Old	/	/	108	Person
	Over 50 Years Old	/	/	1	Person
Turnover Rate		/	/	40.20	%
By Gender	Male	/	/	98	Person
	Female	/	/	60	Person
By Age	Under 30 Years Old	/	/	73	Person
	30-50 Years Old	/	/	85	Person
	Over 50 Years Old	/	/	0	Person
Employee Satisfaction		/	/	85	%

#### Compensation Management

Indicator	2021	2022	2023
Ratio of the Employees' Entry Level Wage to Minimum Wage	1:1	1:1	1:1
Ratio of the Male Employees' Entry Level Wage to Minimum Wage	1:1	1:1	1:1
Ratio of the Female Employees' Entry Level Wage to Minimum Wage	1:1	1:1	1:1

#### Parental Leave

Indicator	2021	2022	2023	Unit
Employees that were entitled to parental leave	/	1	2	Person
Employees that took parental leave	/	1	2	Person
Employees should return to work after taking parental leave	/	1	2	Person
Employees that did return to work after parental leave	/	1	2	Person
Return to work rate	/	100	100	%
Retention rate	/	100	100	%

#### Training and Education

Indicator	2021	2022	2023	Unit
Total Training Duration for all employees	2,064	19,296	37,728	Hour
Average training duration for per employee	48	96	96	Hour
Total Training Duration for male employees	1,200	11,040	20,640	Hour
Total Training Duration for female employees	864	8,256	17,088	Hour

#### Occupational Health and Safety

Indicator	2021	2022	2023	Unit
Occupational Disease	0	0	0	Case
Incidence of Occupational Diseases	0	0	0	%
Work-related injuries	0	0	2	Case
Fatalities as a result of work-related injury	0	0	0	Case
Lost Time Injury Rate Per Million Working Hours	0	0	1.92	%

# Accountability

## Strengthening corporate governance, honoring sustainable development

In today's globalised and competitive business environment, corporate governance plays a crucial role in ensuring the sustainable development of enterprises. It is not only about the quality of decision-making, risk management and ethical standards within an enterprise, but is also a key factor in achieving long-term enterprise value and social well-being. Good corporate governance can ensure that enterprises pursue economic benefits while taking into account environmental protection and social responsibility, thus promoting sustainable development.

By strengthening corporate governance, Sunova/ Thornova Solar implements fairness and transparency in the decision-making process, which helps the company to better respond to market changes and grasp opportunities in the industry while effectively managing risks. By clarifying the responsibilities and authority of the board of directors, management and employees, it ensures that all strategic decisions and operational activities are in line with the principles of sustainable development, including the balance between environmental protection, social responsibility and economic efficiency. In addition, good corporate governance can also help Sunova/ Thornova Solar attract and retain talent, and increase employee engagement and innovation, which is particularly important for a technology-driven organisation.

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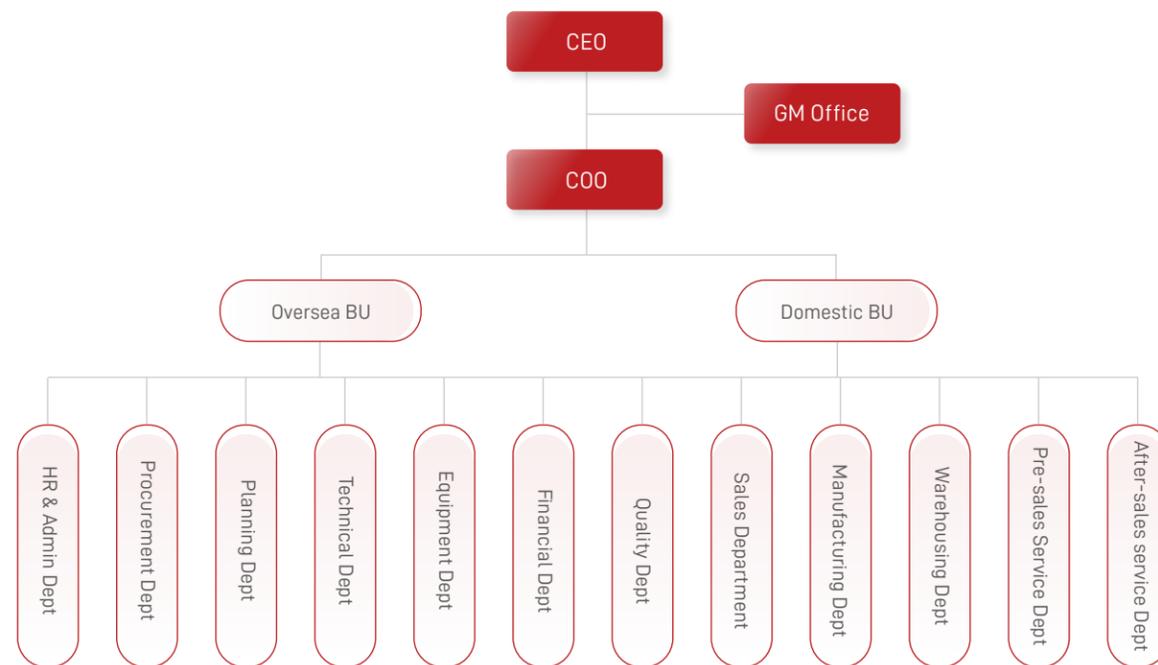
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## Regulating corporate governance

A solid modern corporate governance structure and comprehensive corporate governance policies are essential for companies to create lasting value. Following the guiding principles of the Company Law of the People's Republic of China, Sunova/ Thornova Solar has formulated the Management Charter of Sunova/ Thornova Solar and constructed a set of modern governance system, which ensures the company's lawful and stable operation and safeguards the transparency of the company's operation as well as the rights and interests of the stakeholders, thus promoting the company's comprehensive and sustainable development.

At the same time, Sunova/ Thornova Solar firmly believes that the diversity of the Board of Directors is a key driver of corporate innovation and growth, and an important source of enhancing the overall value of the company. Each of our board members has more than 15 years of industry experience, with backgrounds ranging from overseas education to extensive industrial, commercial and supply chain management experience, bringing a wealth of knowledge and multi-faceted decision-making wisdom to the company.



### Tax Management

Sunova is committed to implementing an efficient and transparent tax management strategy, strictly complying with the laws and regulations of each country, and ensuring the reasonable payment of taxes, so as to create and contribute to social value. We regard tax responsibility as one of the company's important social responsibilities, and insist on fulfilling our tax obligations in accordance with the law and strictly enforcing tax management norms.

In 2023, Sunova/ Thornova Solar achieved a significant growth of

paid nearly CNY

**2,683** million in taxes

## Adherence to Integrity Management

### Business Ethics

Sunova/ Thornova Solar understands the importance of business ethics to win the market and build reputation. We adhere to high standards of business ethics and operate in accordance with the law in order to maintain fair market competition and a healthy business environment. The company has formulated systems such as the Business Ethics Behaviour Management Provisions and the Code of Business Conduct, which clearly regulate the business conduct and ethical standards of all employees, implement a zero-tolerance policy for irregularities such as embezzlement, corruption, bribery, etc., incorporate business ethics into the organisation's core values, require the management to set a good example, actively cultivate the compliance awareness of employees and partners, and work in the same direction with partners throughout the entire value chain, in order to build a harmonious and stable market order.

In 2023, Sunova/ Thornova Solar established a set of integrity risk prevention and control measures by setting up a supervisory and reporting telephone number, activating the joint meeting system, and recording the operation of administrative power by the disciplinary inspection department, identifying the risks of different positions and classifying them into high, medium and low grades according to the probability of occurrence and the degree of harm. These measures, the implementation of which is supervised by the head of the Integrity Group and managed by the deputy head, are designed to enhance transparency and regulate the operation of power, thereby effectively preventing and reducing the risk of corruption.

### Anti-bribery and Corruption

Anti-corruption and commercial bribery systems are a vital part of Sunova/ Thornova Solar's enterprise development. We have therefore formulated and implemented a series of rules and regulations, such as Conflict of Interest Management System and Supplier Management Procedures, which clearly conveys the company's firm stance on anti-corruption and anti-bribery to the employees, suppliers and other stakeholders, strictly implements the principle of avoidance of special relationship, aiming at eliminating the potential conflict of interest. The company has set up an online gift management system to regulate employees' gift management behaviour in business interactions, including all aspects of gift claiming, giving and accepting. At the same time, the company has a whistleblower protection mechanism to ensure that the complainant's information is not leaked, and encourages employees to expose unlawful behaviours and safeguard their own and the company's interests.

Sunova/ Thornova Solar attaches great importance to raising employees' awareness of anti-corruption and anti-bribery. To this end, the company organises business ethics training every six months to deepen employees' understanding of the potential risks of unethical behaviour.



Business Ethics Training

In addition, the Company has adopted proactive reminding measures by issuing business ethics-related alerts to employees via email during critical periods as a means of enhancing employees' awareness of integrity and self-discipline, and urging key positions to consciously resist commercial bribery to reduce business continuity risks.

### Complaint Channels

 Tel: 86 0510 8595 9369

 Email: info@sunova-solar.com

 Address: 4/F, Zone B, Liye Building, No. 20 Qingyuan Road, Xinwu District, Wuxi City, Jiangsu Province, P.R. China

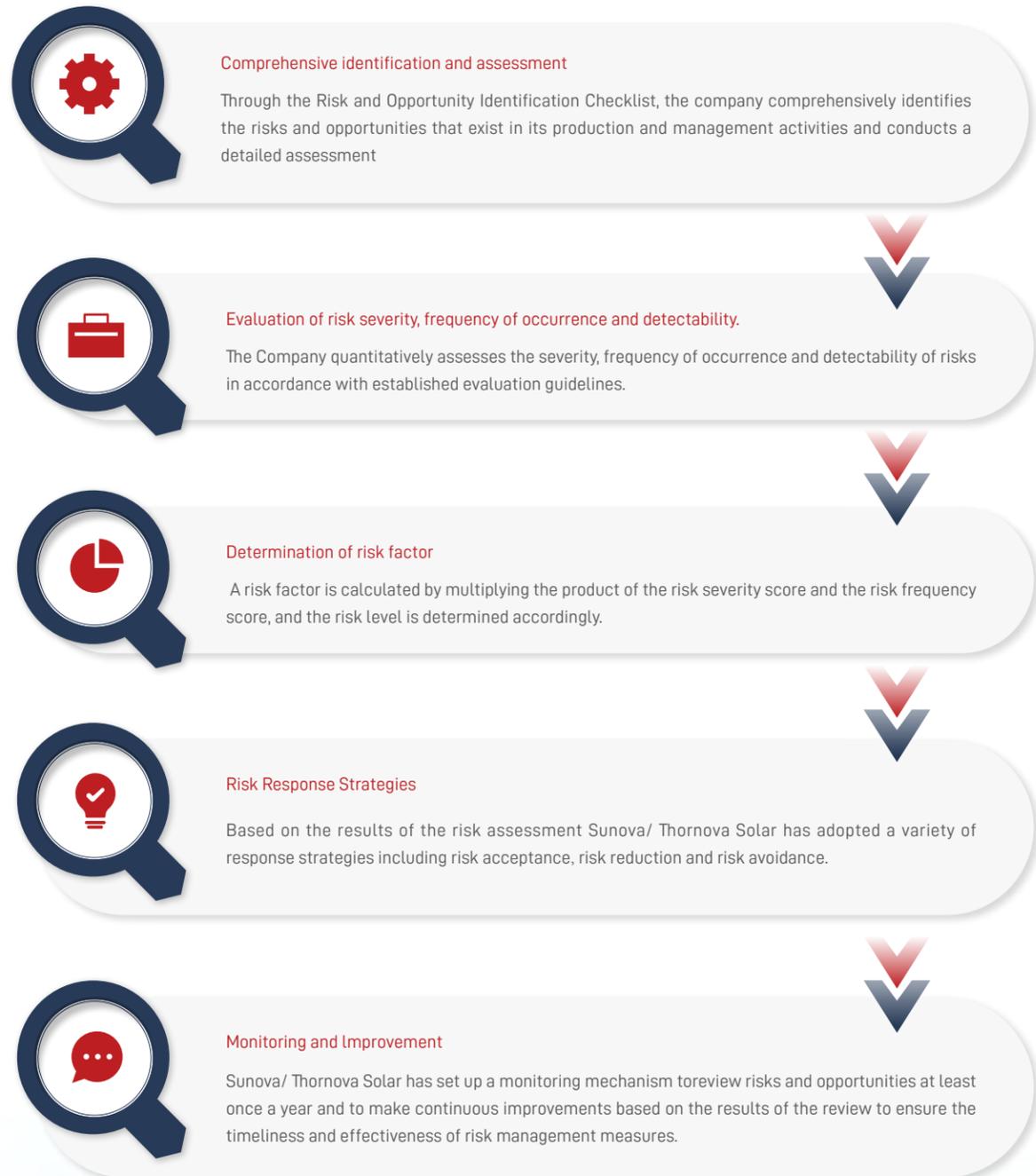
### Internal Control

In terms of compliance, we are committed to accurately identifying and rigorously controlling risks. We have developed and implemented a Risk and Opportunity Control Procedure and a Risk and Opportunity Identification Checklist, which are regularly reviewed and updated on an annual basis to ensure that their contents are up-to-date and accurate. Through this process, we have established a standardised and efficient risk management framework designed to identify potential risks and take effective measures to reduce them to a low risk level in a timely manner, thereby safeguarding the stability and sustainability of our operations.

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In order to ensure the continued suitability, adequacy and effectiveness of the management system and to reduce potential risks, Sunova/ Thornova Solar conducted a comprehensive internal audit of the company's management system in 2023, covering ISO 9001, ISO 14001, ISO 45001 and IEC 62941 standards, covering quality, environment, occupational health and safety management of solar PV modules in the production and sales process. A total of 9 non-conformities were found in the internal audit, which were effectively rectified and improved within one month to ensure the effective operation of the management system.

# Focus on quality of service

## Product quality and safety



IEC 61215



IEC 61730



UNI9177



MCS PV0319



CE



IEC 61215/61730

## Service Quality Management

Sunova/ Thornova Solar has implemented a series of effective measures in customer relationship management, including the formulation of documents such as "Customer Feedback Control Procedures", "Customer Requirements Review Procedures", "Customer Complaints Handling Management Regulations" and "Customer Return Procedures", in order to ensure that customer feedbacks and complaints are properly handled. The sales team conducts regular satisfaction surveys through customer meetings, telephone communications and questionnaires, covering product quality, delivery lead time and service personnel attitude. Surveys are conducted on five satisfaction levels to accurately assess customer satisfaction and identify room for improvement.

In the face of customer complaints, we adopt a controlled process to ensure that all issues are recorded and corrective and preventive actions are taken where necessary. In addition, we regularly monitor the situation of repeated complaints, prepare customer complaint reports and communicate with relevant departments to resolve potential problems and continuously improve customer satisfaction.

## Data security and privacy protection

Sunova/ Thornova Solar is committed to data security management. Based on internal regulations such as the Information System Cyber Attack Contingency Plan, Sunova/ Thornova Solar has adopted a series of standardised measures to strengthen information security in order to prevent and respond to potential cyber security incidents, and to ensure business continuity and the confidentiality, integrity, and availability of customer data. The plan covers response strategies for a range of emergencies, from monitoring of illegal cyber speech to virus attacks, software corruption, database crashes, and network line interruptions.

Sunova/ Thornova Solar is committed to meeting our customers' needs for high-quality and reliable products. We use cutting-edge automated equipment and strict quality control processes that follow IEC standards to ensure superior product quality. We provide up to 15 years of product warranty for our product modules and work with PICC to provide additional product reinsurance services to our customers to enhance market confidence. Our solar photovoltaic module production and sales are fully certified under the ISO 9001 quality management system. In addition, our solar products have also obtained a number of international accreditations, including the CQC certification for double-glazing, the TÜV SÜD single-glazing certification, the Mexican ETL certification, the Italian fire protection certification, the UK MCS certification, and the Chilean SEC certification, providing stringent guarantees for product quality and safety.

In terms of organisational leadership, Sunova/ Thornova Solar has set up a contingency plan project team led by senior management and clarified the responsibilities of each member to ensure a rapid and effective response in the event of a cyber-attack. The company adheres to the principle of "prevention in advance, active disposal", and improves employees' security awareness and emergency response capability through regular training and drills.

In addition, Sunova/ Thornova Solar has implemented a number of measures at the technical level, including but not limited to data backup, deployment of anti-virus software, physical disconnection of network security equipment and rapid switching of backup systems. In terms of privacy protection, the company has adopted strict confidentiality measures for the handling of personal information to ensure that it will not be disclosed to unauthorised third parties under any circumstances.

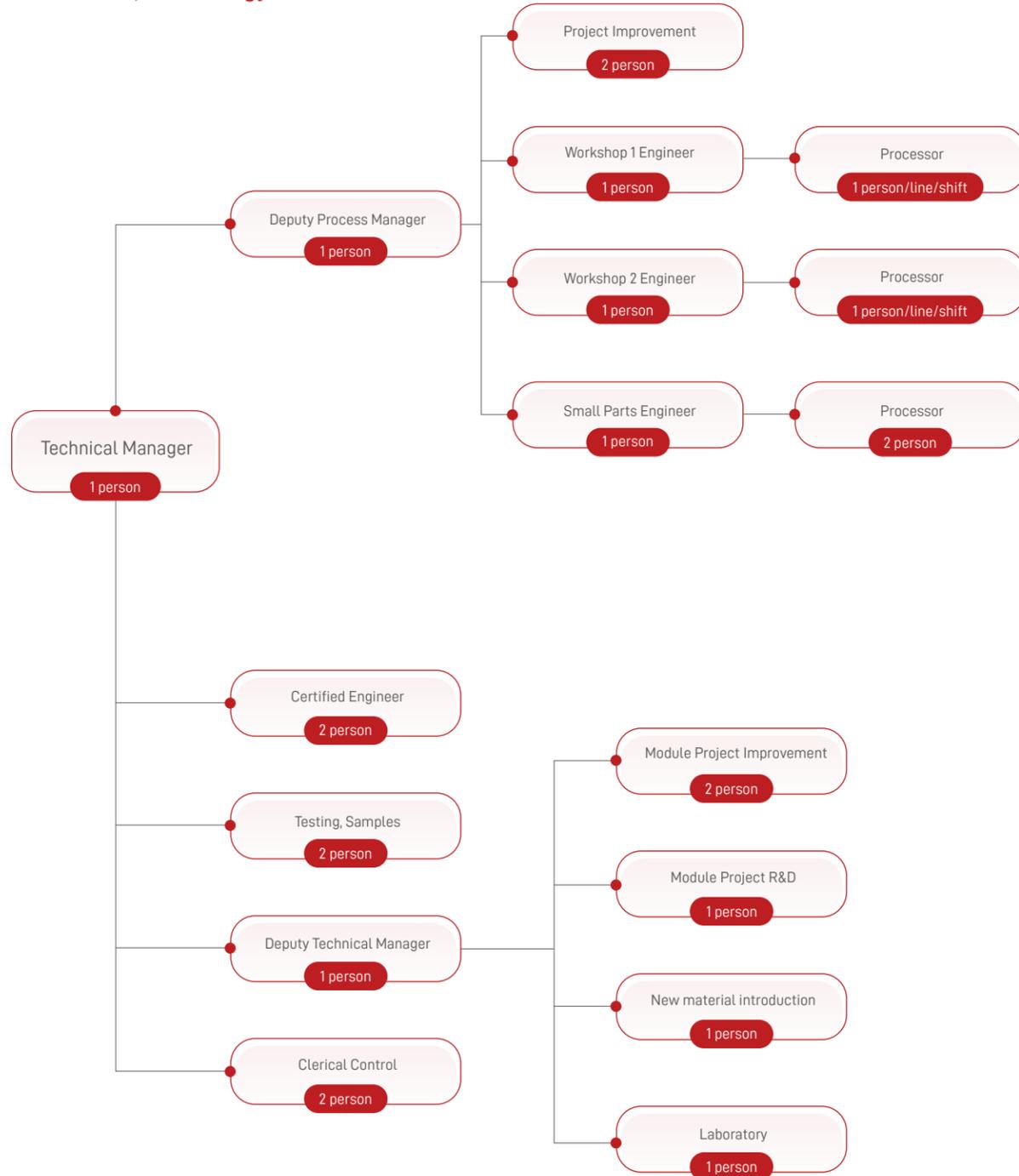
In 2023, the Company did not receive any complaints due to incidents of customer information leakage and marketing logo breaches.

Case
April 2023 Information System Cyber Attack Emergency Response Exercise

The drill simulated a cyber-attack on the Finance Department, triggering a cross-departmental emergency response, including emergency power cut, network disconnection and alarm. The network administrator quickly repaired the problem, and no file loss or damage was found. The drill achieved the expected goal and verified the appropriateness and adequacy of the plan.

# Empowering PV Excellence

## Science, Technology and Innovation



Organisation Chart of R&D Department

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Strengthening corporate governance,  
honoring sustainable development

As a one-stop solution provider focusing on the R&D and manufacturing of global distributed photovoltaic products and the development of distributed power plants, Sunova/ Thornova Solar, since its establishment, has been continuously increasing the investment of resources to actively research and develop high-efficiency photovoltaic modules for different environments, to meet the needs of different scenarios of electricity consumption. In the future, the company will further layout floating photovoltaic to create energy-saving and emission reduction, low-carbon and efficient power environment, and to promote the global green energy transition through a full range of green energy solutions.

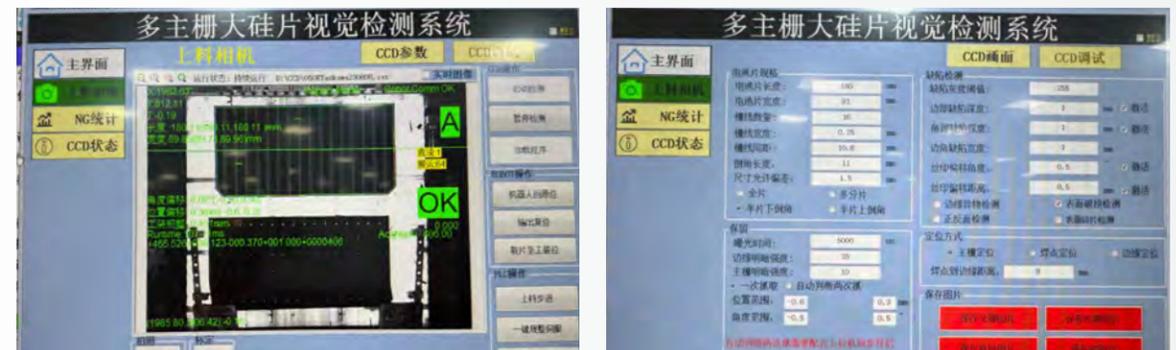


Smart Balcony Solar Kit

## Innovative Product Cases

In 2023, the company launched a smart balcony solar kit designed for balconies with an all-in-one design that is easy to install, portable, and guaranteed quality. The system integrates solar panels, microinverters and cables and supports folding for different installation environments. The solar panel angle is adjustable for maximum power generation efficiency. Plug and play connection does not require installation by professionals, thereby product comes with a 12-year warranty on the microinverter and 15-year warranty on the solar panels. Through Sunova/ Thornova Solar's AP EasyPower mobile app, users can monitor the PV system's operating status and power generation data in real time, realising intelligent energy management.

## Welding machine AI Inspection System Case



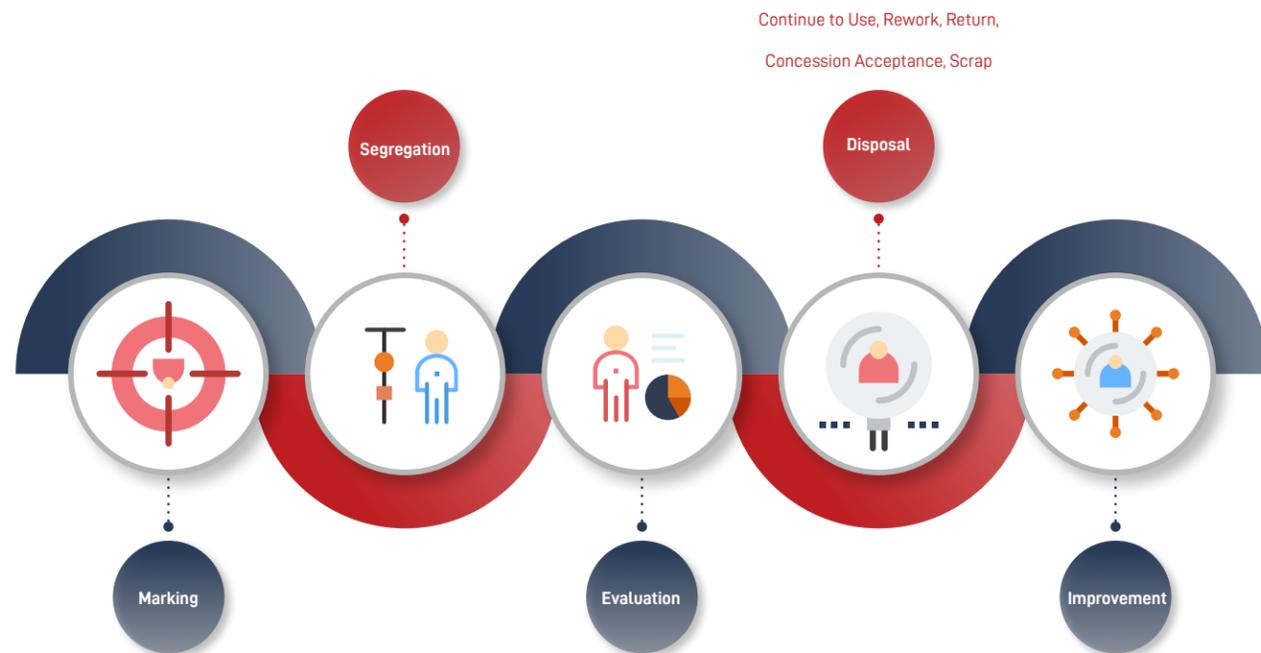
Welding machine AI inspection system

Sunova/ Thornova Solar's AI inspection system consists of three main parts: image inspection and positioning system, loading image defect detection system and unloading EL inspection system. The system realises precise positioning and appearance inspection of cells through AI technology, ensuring correct cell specifications, preventing efficiency mixing and adjusting offsets in a timely manner. The loading system is capable of automatically detecting and separating broken cells to prevent defective products from flowing into the next production process. The downstream EL inspection system focuses on identifying defects such as hidden cracks, scratches, broken wafers, weld bias, false welds, black wafers and broken grids that may occur during the welding process, and automatically separates defective strings of batteries while visually displaying the defective locations in the image, effectively improving production efficiency and product quality.

## Product Design and Lifecycle Management

Our company has formulated "Sunova/ Thornova Solar Component Quality Control Plan", "Finished Component Inspection Standard", "Incoming Material Inspection Control Procedure" and "Inspection and Experimentation Control Procedure" and other quality management quality documents to strictly monitor the incoming materials, design, production, packaging and other aspects of the product. In terms of supplier quality management testing, we require suppliers to provide REACH and RoHS test reports and acceptance of on-site inspections and tripartite independent sample sampling and testing conducted by our engineers to ensure that all raw materials and components entering our supply chain comply with strict inspection standards. In both product design and production stages, we adopt FMEA (Failure Mode and Effects Analysis) method to identify possible failure modes, consequences, causes, severity, frequency, detection and risk order numbers of components in the design and production process, and propose corresponding preventive and detection measures to safeguard the quality of products and receipts, and to reduce potential risks. In the production stage, we strictly follow the "four-eyes principle", from production to first-piece confirmation, routine inspection and inspection check, to ensure that the products are carefully checked by the quality team before shipment. At the same time, we maintain every detail of quality control management in accordance with on-site quality control standards and the "6S" principle, and utilise intelligent systems to identify and isolate non-conforming products to avoid unintended outflows.

Sunova/ Thornova Solar has formulated "Nonconforming Product Control Procedures" and "Corrective and Preventive Measures Control Procedures", and actively implemented nonconforming product management and control measures. Once nonconforming products are found within the factory or in sales, we will immediately carry out a unified treatment for them. The quality management department will evaluate these nonconforming products according to the relevant quality management system, and record in detail the reasons for continued use, rework, return, concession acceptance, and scrapping of the products, analyse the data of the nonconforming products, and monitor and improve them, establishing a complete closed-loop management process of marking, segregation, evaluation, product disposal, and improvement. This measure is designed to reduce the rate of product defects, reduce return-to-stock issues, and ensure that the quality of products and services meets our high standards.



## Governance management performance

### Business Ethics

Indicator	2021	2022	2023	Unit
Operational sites for which corruption risk assessments have been conducted	1	2	4	Incident
Percentage of operating sites that have conducted a corruption risk assessment	100	100	100	%
Rate of anti-corruption and anti-bribery training	98	97	100	%
Proven incidents of corruption	0	0	0	Incident
Lawsuits on unfair competition, anti-trust practices	0	0	0	Incident
Incidents of fines for violations of marketing (advertising, marketing, sponsorship) regulations	0	0	0	Incident
Number of incidents involving complaints about customer privacy breaches	0	0	0	Incident
Incidents of fines imposed for violations of product/ service safety regulations	0	0	0	Incident

### Customer Satisfaction

Indicator	2021	2022	2023	Unit
Customer Satisfaction	95	95.3	96.5	%

### Patent inputs

Indicator	2021	2022	2023	Unit
Investment in R&D	2000	7069.11	7551.53	Ten thousand yuan
Accumulated patents	0	34	28	Piece
Invention Patent	0	7	2	Piece
Utility model	0	27	26	Piece

### R&D Team

Indicator	2021	2022	2023	Unit
Percentage of R&D staff in all employees	2	5	5	%
Of which: Ph.D.	0	10	10	%
Master	50	50	50	%
Undergraduate and below	50	40	40	%

# Appendix

## GRI Standards Index

<b>Statement of use</b>	<b>GRI 1 used</b>	GRI 1: Foundation 2021
Sunova/ Thornova Solar Technology Co., Ltd. has reported in accordance with the GRI Standards for the period 1 January 2023 to 31 December 2023.	<b>Applicable GRI Sector Standard(s)</b>	None

GRI STANDARD DISCLOSURE	LOCATION	OMISSION
<b>GRI 2: General Disclosures 2021</b>		
<b>The organization and its reporting practices</b>		
2-1 Organizational details	05-12	
2-2 Entities included in the organization's sustainability reporting	01	
2-3 Reporting period, frequency and contact point	02	
2-4 Restatements of information		Not applicable, there is no information restatement.
2-5 External assurance		Not applicable, this report has not been externally verified, but has been reviewed by the Board of Directors.
<b>Activities and workers</b>		
2-6 Activities, value chain and other business relationships	05-10	
2-7 Employees	38-39	
2-8 Workers who are not employees	30	
<b>Governance</b>		
2-9 Governance structure and composition	43	
2-10 Nomination and selection of the highest governance body	43-44	
2-11 Chair of the highest governance body	43	
2-12 Role of the highest governance body in overseeing the management of impacts	13; 43-44	
2-13 Delegation of responsibility for managing impacts	43	
2-14 Role of the highest governance body in sustainability reporting	02	
2-15 Conflicts of interest	44	
2-16 Communication of critical concerns	15	
2-17 Collective knowledge of the highest governance body	13	
2-18 Evaluation of the performance of the highest governance body		Confidentiality constraints, which relate to private information.
2-19 Remuneration policies	32	
2-20 Process to determine remuneration	32	
2-21 Annual total compensation ratio		Confidentiality constraints, which relate to private information.
<b>Strategy, policies and practices</b>		

GRI STANDARD DISCLOSURE	LOCATION	OMISSION
2-22 Statement on sustainable development strategy	13	
2-23 Policy commitments	30	
2-24 Embedding policy commitments	30	
2-25 Processes to remediate negative impacts	46	
2-26 Mechanisms for seeking advice and raising concerns	29; 45	
2-27 Compliance with laws and regulations	43	
2-28 Membership associations	11	
<b>Stakeholder engagement</b>		
2-29 Approach to stakeholder engagement	15	
2-30 Collective bargaining agreements	30-31	
<b>GRI 3: Material Topics 2021</b>		
3-1 Process to determine material topics	16	
3-2 List of material topics	16	
<b>GRI 201: Economic Performance 2016</b>		
3-3 Management of material topics	07	
201-1 Direct economic value generated and distributed	07	
201-2 Financial implications and other risks and opportunities due to climate change		Information unavailable, we plan to carry out climate-related risk identification and assessment work in the future and disclose relevant information in the future.
201-3 Defined benefit plan obligations and other retirement plans	32	
201-4 Financial assistance received from government	12	
<b>GRI 202: Market Presence 2016</b>		
3-3 Management of material topics	05-07	
202-1 Ratios of standard entry level wage by gender compared to local minimum wage	40	
202-2 Proportion of senior management hired from the local community	39	
<b>GRI 203: Indirect Economic Impacts 2016</b>		
3-3 Management of material topics	37	
203-1 Infrastructure investments and services supported	37	
203-2 Significant indirect economic impacts	37	
<b>GRI 204: Procurement Practices 2016</b>		
3-3 Management of material topics	27-29	
204-1 Proportion of spending on local suppliers	27-29	
<b>GRI 205: Anti-corruption 2016</b>		
3-3 Management of material topics	44-46	
205-1 Operations assessed for risks related to corruption	44-46	
205-2 Communication and training about anti-corruption policies and procedures	44-46	
205-3 Confirmed incidents of corruption and actions taken	44-46	

GRI STANDARD DISCLOSURE	LOCATION	OMISSION
<b>GRI 206: Anti-competitive Behavior 2016</b>		
3-3 Management of material topics	44-46	
206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	44-46	
<b>GRI 207: Tax 2019</b>		
207-1 Approach to tax	43	
207-2 Tax governance, control, and risk management	43	
207-3 Stakeholder engagement and management of concerns related to tax	15	
207-4 Country-by-country reporting		Not applicable, we do not disclose country-by-country reporting.
<b>GRI 301: Materials 2016</b>		
3-3 Management of material topics	22	
301-1 Materials used by weight or volume	24	
301-2 Recycled input materials used	24	
301-3 Reclaimed products and their packaging materials	24	
<b>GRI 302: Energy 2016</b>		
3-3 Management of material topics	20	
302-1 Energy consumption within the organization	24	
302-2 Energy consumption outside of the organization	24	
302-3 Energy intensity		Information unavailable, we plan to provide additional information and disclose it in the future.
302-4 Reduction of energy consumption		Information unavailable, we plan to provide additional information and disclose it in the future.
302-5 Reductions in energy requirements of products and services		Information unavailable, we plan to provide additional information and disclose it in the future.
<b>GRI 303: Water and Effluents 2018</b>		
3-3 Management of material topics	21	
303-1 Interactions with water as a shared resource	21	
303-3 Management of water discharge-related impacts	22	
303-3 Water withdrawal	24	
303-4 Water discharge	24	
303-5 Water consumption	24	
<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		Not applicable, the Company does not own, lease or manage operations located in or adjacent to protected areas and biodiversity-rich areas outside protected areas.
304-2 Significant impacts of activities, products and services on biodiversity	23	

GRI STANDARD DISCLOSURE	LOCATION	OMISSION
304-3 Habitats protected or restored		Not applicable, we are not involved in habitat restoration activities.
304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations		Not applicable, no habitat is affected by the company's operations or is listed on the IUCN.
<b>GRI 305: Emissions 2016</b>		
3-3 Management of material topics	20-22	
305-1 Direct (Scope 1) GHG emissions	24	
305-2 Energy indirect (Scope 2) GHG emissions	24	
305-3 Other indirect (Scope 3) GHG emissions		Information unavailable, we plan to provide additional information and disclose it in the future.
305-4 GHG emissions intensity		Information unavailable, we plan to provide additional information and disclose it in the future.
305-5 Reduction of GHG emissions		Information unavailable, we plan to provide additional information and disclose it in the future.
305-6 Emissions of ozone-depleting substances (ODS)		Not applicable, the Company's production operations do not involve ODS.
305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions		Not applicable, the Company's production operations do not involve NOx and SOx, and other significant air emissions.
<b>GRI 306: Waste 2020</b>		
3-3 Management of material topics	21-22	
306-1 Waste generation and significant waste-related impacts	21-22	
306-2 Management of significant waste-related impact	22	
306-3 Waste generated	24	
306-4 Waste diverted from disposa	24	
306-5 Waste directed to disposal	24	
<b>GRI 308: Supplier Environmental Assessment 2016</b>		
3-3 Management of material topics	27-29	
308-1 New suppliers that were screened using environmental criteria	27-29	
308-2 Negative environmental impacts in the supply chain and actions taken	27-29	
<b>GRI 401: Employment 2016</b>		
3-3 Management of material topics	30-32	
401-1 New employee hires and employee turnover	39	
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employee	32	
401-3 Parental leave	40	
<b>GRI 402: Labor/Management Relations 2016</b>		
3-3 Management of material topics	30	
402-1 Minimum notice periods regarding operational changes	30	

GRI STANDARD DISCLOSURE	LOCATION	OMISSION
<b>GRI 403: Occupational Health and Safety 2018</b>		
3-3 Management of material topics	35-37	
403-1 Occupational health and safety management system	35-37	
403-2 Hazard identification, risk assessment, and incident investigation	35-37	
403-3 Occupational health services	35-37	
403-4 Worker participation, consultation, and communication on occupational health and safety	35-37	
403-5 Worker training on occupational health and safety	35-37	
403-6 Promotion of worker health	35-37	
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	35-37	
403-8 Workers covered by an occupational health and safety management system	35-37	
403-9 Work-related injuries	40	
403-10 Work-related ill health	40	
<b>GRI 404: Training and Education 2016</b>		
3-3 Management of material topics	33-34	
404-1 Average hours of training per year per employee	33-34	
404-2 Programs for upgrading employee skills and transition assistance programs	33-34	
404-3 Percentage of employees receiving regular performance and career development reviews	33-34	
<b>GRI 405: Diversity and Equal Opportunity 2016</b>		
3-3 Management of material topics	29-30	
405-1 Diversity of governance bodies and employees	38-39	
405-2 Ratio of basic salary and remuneration of women to men	32; 40	
<b>GRI 406: Non-discrimination 2016</b>		
3-3 Management of material topics	29-30	
406-1 Incidents of discrimination and corrective actions taken	29-30	
<b>GRI 407: Freedom of Association and Collective Bargaining 2016</b>		
3-3 Management of material topics	29-32	
407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	29-32	
<b>GRI 408: Child Labor 2016</b>		
3-3 Management of material topics	29-30	
408-1 Operations and suppliers at significant risk for incidents of child labor	29-30	
<b>GRI 409: Forced or Compulsory Labor 2016</b>		
3-3 Management of material topics	29-30	
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	29-30	

GRI STANDARD DISCLOSURE	LOCATION	OMISSION
<b>GRI 410: Security Practices 2016</b>		
3-3 Management of material topics		Not applicable, we locate in an industrial park, and there is no direct labor relationship with security personnel.
410-1 Security personnel trained in human rights policies or procedures		Not applicable, we locate in an industrial park, and there is no direct labor relationship with security personnel.
<b>GRI 411: Rights of Indigenous Peoples 2016</b>		
3-3 Management of material topics	37	
411-1 Incidents of violations involving rights of indigenous peoples	37	
<b>GRI 413: Local Communities 2016</b>		
3-3 Management of material topics	37	
413-1 Operations with local community engagement, impact assessments, and development programs	37	
413-2 Operations with significant actual and potential negative impacts on local communities	37	
<b>GRI 414: Supplier Social Assessment 2016</b>		
3-3 Management of material topics	27-29	
414-1 New suppliers that were screened using social criteria	27-29	
414-2 Negative social impacts in the supply chain and actions taken	27-29	
<b>GRI 415: Public Policy 2016</b>		
3-3 Management of material topics		Not applicable, we do not participate in political contributions.
415-1 Political contributions		Not applicable, we do not participate in political contributions.
<b>GRI 416: Customer Health and Safety 2016</b>		
3-3 Management of material topics	47-48	
416-1 Assessment of the health and safety impacts of product and service categories	47-48	
416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	47-48	
<b>GRI 417: Marketing and Labeling 2016</b>		
3-3 Management of material topics	47	
417-1 Requirements for product and service information and labeling	47	
417-2 Incidents of non-compliance concerning product and service information and labeling	47	
417-3 Incidents of non-compliance concerning marketing communications	47	
<b>GRI 418: Customer Privacy 2016</b>		
3-3 Management of material topics	47-48	
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	47-48	
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data		

## Sustainability Accounting Standards Board (SASB) Content Index

ISSUES	DISCLOSURE		LOCATION
	CODE	ACCOUNTING METRIC	
Energy Management in Manufacturing Processes	RR-ST-130a.1	Total energy consumed	24
		Percentage grid electricity	24
		Percentage renewable	24
Water Management in Manufacturing Processes	RR-ST-140a.1	Total water withdrawn	24
		Total water consumed	24
	RR-ST-140a.2	Description of water management risks and discussion of strategies and practices to mitigate those risks	21
Hazardous Waste Management	RR-ST-150a.1	Amount of hazardous waste generated, percentage recycled	24
		Percentage recycled	24
	RR-ST-150a.2	Number of reportable spills	Not applicable
		Aggregate quantity of reportable spills	Not applicable
Ecological Impact in Project Development	RR-ST-160a.1	Number of project delays related to ecological impacts	Not applicable
		Duration of project delays related to ecological impacts	Not applicable
	RR-ST-160a.2	Description of efforts in solar energy system project development to address community and ecological impacts	23
Energy Infrastructure Integration and Regulatory Management	RR-ST-410a.1	Description of risks associated with integration of solar energy into existing energy infrastructure and discussion of efforts to manage those risks	Information unavailable
	RR-ST-410a.2	Description of risks and opportunities associated with energy policy and its impact on the integration of solar energy into existing energy infrastructure	Information unavailable
End-of-Life Product Management	RR-ST-410b.1	Weight of reusable or recyclable items of product sold	24
		Weight of product sold	Information unavailable
		Percentage of products sold that are recyclable or reusable	Information unavailable
	RR-ST-410b.2	Weight of end-of-life material recovered	24
		Total Weight of Scrap Material	24
	RR-ST-410b.3	Percentage of Recycling	Information unavailable
		Percentage of Products Containing IEC 62474 Declarable Substances, Arsenic Compounds, Antimony Compounds, or Beryllium Compounds, Calculated by Revenue	Information unavailable
RR-ST-410b.4	Describe Methods and Strategies for Designing High-Value Recyclable Products	Information unavailable	

ISSUES	DISCLOSURE		LOCATION
	CODE	ACCOUNTING METRIC	
Raw Material Procurement	RR-ST-440a.1	Description of Risk Management Related to the Use of Critical Materials	28-29
	RR-ST-440a.2	Description of Environmental Risk Management Related to the Polysilicon Supply Chain	28-29
Business Activities	RR-ST-000.A	Total Capacity of Photovoltaic Modules	05, 07
	RR-ST-000.B	Total Capacity of Installed Solar Systems	05, 07
	RR-ST-000.C	Total Amount of Project Development Assets	Information unavailable

## The Ten Principles of the UN Global Compact Index

ISSUES	PRINCIPLE		LOCATION
	PRINCIPLE	PRINCIPLE	
Human Rights	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights.		29-30
	Principle 2: make sure that they are not complicit in human rights abuse.		29-30
Labour	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.		29-30
	Principle 4: the elimination of all forms of forced and compulsory labour.		29-30
	Principle 5: the effective abolition of child labour.		29-30
	Principle 6: the elimination of discrimination in respect of employment and occupation.		29-30
Environment	Principle 7: Businesses should support a precautionary approach to environmental challenges.		17
	Principle 8: undertake initiatives to promote greater environmental responsibility.		17
	Principle 9: encourage the development and diffusion of environmentally friendly technologies.		17
Anti-Corruption	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.		44-45