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Innovation-driven

Development

# **About the Report**



# **Report Overview**

The Report is the second Environmental, Social and Corporate Governance (ESG) report released by Eging Photovoltaic Technology Co., Ltd. (hereinafter referred to as "EGING PV", "the Company" or "we"), which aims to disclose to stakeholders the Company's management and actions, and performance on various ESG issues.



# Organizational Scope of the Report

The headquarters, branches and subsidiaries of Eging Photovoltaic Technology Co., Ltd.



# Time Range of the Report

The Report mainly covers the period from January 1 to December 31, 2023, and may traces back to previous years in virtue of comparability and continuity.



# Report Release Cycle

This Report is published once a year, at the same time as the Company's annual report, with the detailed date of release subject to that of the year.



## **About Information Sources**

The information in the Report is gathered from relevant statements, files, stakeholder investigations or interviews of the Company.



# **Preparation References**

This Report has been prepared by referring to relevant guidance documents such as the Global Reporting Initiative's "Sustainable Development Reporting Guidelines (GRI Standards 2021)" and the "United Nations Sustainable Development Goals" (UN SDGs 2030), drawing on ESG issues that are given high weights by internationally authoritative ESG rating agencies such as MSCI, Sustainalytics, and S&P, and in combination with the current actual situation of EGING PV.



# Disclaimer

The Report contains forward-looking statements. Except historical facts, all the events and statements that may or will occur in the future (including but not limited to premises, objectives, evaluations or business plans) should be viewed as forwardlooking statements, which may deviate from future results or trends as affected by potential changes.

# Message from the Chairman

Against the backdrop of global warming and the increasing depletion of fossil energy, the development and utilization of renewable energy has received increasing attention from the international community, and vigorously developing renewable energy has become an international consensus. The past 2023 was a year full of challenges and changes for the photovoltaic industry. This year, photovoltaics surpassed hydropower to become the second largest power source in China. New photovoltaic installed capacity hit a historical high, new technologies flourished, N-type production capacity was substantially released, marking the accelerated coming of N-type photovoltaics era. It was also in this year that prices across the entire photovoltaic industry chain continued to decline, breaking through the cost line.

As a long-established photovoltaic company, EGING PV has always adhered to steady operations and established trusting partnerships with all parties. In order to adapt to the Company's strategic development needs and further improve the corporate governance structure, the Company has established the Board of Directors'Strategic Development and ESG Committee to deepen the board's participation in the deployment of ESG matters. By focusing on new technologies and new business models, we strive to build an innovative enterprise, commit ourselves to providing global users with efficient, high-performance, and cost-effective photovoltaic products and services. Meanwhile, we systematically implement excellent performance management, and strive to promote the coordinated, healthy, and low-carbon development of economy, society, and environment.

Low carbon development is conducive to achieving the dual carbon goals. Thanks to the support of national policies, EGING PV has taken providing the most reliable clean energy as its mission and providing the world's leading photovoltaic intelligent manufacturing and smart energy solutions as its vision. We have established a comprehensive environmental management system. Through a variety of measures, we have reduced our own and upstream and downstream companies' greenhouse gas emissions, evaluated the impact of each production link on the environment, and integrated the concept of green and sustainable development into the entire life cycle management of products to create a green supply ecosystem. In 2023, the Company successfully obtained the CQC "Zero Carbon Factory" certification. Meanwhile, the Company is also one of the first national "Green Factory" enterprises, and has obtained a series of certificates issued by CQC, including "Three-Star Green Producty", "Green Building Materialsy", "Product Carbon Footprint", etc. EGING PV has always been a green energy technology company worthy of the trust of all parties.

EGING PV is an innovation-driven company and intelligent technologies promote industrial upgrading. We accelerate the deep integration of industrial enterprises with the new generation of information technology, build intelligent factories, realize industrial AGV application coverage, and promote MES\ERP\TMS projects. We have achieved the integration of the talent chain and the industrial chain closer through the introduction of industrial technical talents and the cultivation of fertile soil for the development of talents. In addition, through the cooperation between industry, academia and research, we have carried out special research



About the Report

Message from the Chairman

About EGING PV

Sustainable Development Management Innovation-driven Development Creating Longterm Value Corporate Compliance Operations Protecting Green Ecology Stick to the Bottom Line of Safety Adherence to People-oriented

Appendix

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on the industry's bottleneck problems. We have participated in the drafting and formulation of industry standards and group standards, and built a second national laboratory. In 2023, the Company's high-efficiency solar module 5G workshop was awarded the 5G factory approved by the Ministry of Industry and Information Technology in 2023, and was awarded the honorary titles of National Intellectual Property Advantage Enterprise, Top 100 Chinese Electronic Information Enterprises, and Leading Digital Enterprise.

With assured quality, EGING PV focuses on building product strength. Based on the Company's strategic layout, in 2023, Chuzhou base N-type TOPCon battery capacity gradually released, and the efficiency yield reached the industry average or above. In terms of internal management, we have implemented the safety production responsibility system, focused on system improvement, and strengthened quality control over the entire life cycle of products. We continue to improve product reliability and safety, adhere to high-quality development of power station projects, ensure safe and efficient operation, and improve operation and maintenance and service levels. In 2023, the Company won honors such

as CCTV Quality China Photovoltaic Industry Partner, Global Photovoltaic Excellent Brand of the Year, and Excellent Supplier of State Power Investment Group Hubei Company.

EGING PV attaches importance to employees and fulfilling social responsibilities. We take "caring for employees' labor" as one of the three major principles of the enterprise, and create a community of interests, a community of cause, and a community of destiny with its employees. During our development process, we are building EGING PV's "family culture" to enhance employees' sense of happiness and gain. Meanwhile, the Company has been actively engaged in public welfare undertakings for many years and has given back to the society with practical actions. By carrying out paired assistance, working together to help the disabled, supporting the construction of new countryside, etc., we have shared development results with all parties and given full play to corporate value.

Cultivating new quality productivity is an inherent requirement for high-quality development, and green development is the foundation of high-quality development. As a strategic emerging industry with international competitive advantages, the development of the photovoltaic industry is of great significance to achieving the goals of carbon peak and carbon neutrality. EGING PV will continue to operate steadily and actively embrace the opportunities and challenges of the photovoltaic industry. We are willing to work with all parties to accelerate the transformation of the energy structure, create new low-carbon and green business models, and make greater contributions to building a clean and beautiful world!



Chairman Liu Qiang
April 2024

# **Company Profile**

EGING PV Technology Co., Ltd. (hereinafter referred to as "EGING PV"), stock code (SH600537), is a photovoltaic enterprise listed on the A-share market in China. It specializes in the production of solar cell modules and conducts all production and business activities through its holding subsidiary Changzhou EGING PV Technology Co., Ltd.

EGING PV was established in May 2003 with a registered capital of RMB 1,195.29 million. The Company has two production bases in Changzhou, Jiangsu and Chuzhou, Anhui and covered a land area of over 2,500 mu. EGING PV specializes in the production and sales of high-efficiency crystalline silicon solar cells and modules, with a planned annual production capacity of 25GW solar cells and module products. Meanwhile, the Company extends the industrial chain into PV power generation, having successful experience in constructing and operating PV power stations. In terms of domestic sales, thanks to its future-oriented marketing networks, reliable product quality, good reputation and strong marketing capability, EGING PV has established long-standing partnerships with power groups and large state-owned enterprises in China. Overseas, while further tapping the traditional European market, the Company also increases presence in emerging markets including Japan, Southeast Asia and Latin America.

The Company takes "Integrity, Win-Win, Truth-Seeking and Innovation" as its corporate values and has been rated as a "National Contract-Abiding and Credit-Worthy Enterprise" for many consecutive years. Adhering to the people-oriented, integrity-based business principles, the Company has gathered industry elites, introduced advanced technology at home and abroad, and served the world based on superb technology and high-quality services.

# **Corporate Culture**



Year of establishment:

2003

Land area:

2,500+mu

Stock code:

SH600537

Global shipments:

**35**<sub>GW</sub>

Ranking among private enterprises in China:

Top **500** 



production line put into

production

Unveiled PV modules, and

of Science and Technology

the certificate of "Key High-

Tech Enterprise".

was awarded by the Ministry

double-sided leader

certification from CQC

2GW high-efficiency crystalline

silicon cell production line put

into operation

2023

Chuzhou base 10GW high-efficient

N-type TOPCon

into production

battery project put

# **Development Path**

### 2021 2019 3GW high-efficiency crystalline 2015 silicon cell production line put into operation and won the first 2009 Included in the "World's Tier 1 highest registration certificate for 2006 PV manufacturers" list by BNEF green product certification of PV Ranked among the Top 500 Included in the Top 10 Chinese modules in China 2003 private enterprises in China EGING PV solar PV brands Certified as a "Top Runner" by cell line started EGING PV was registered and productionproduction line COC established, starting the green put into production. energy journey from crystal pulling. 2022 10GW high-efficient N-type TOPCon Cells project was signed and settled 2020 in Chuzhou 5GW high-efficient crystalline silicon 2005 2018 2GW high-efficiency crystalline module 5G smart manufacturing 2007 silicon module production line put production line put into operation EGING PV silicon wafer Won the world's first into operation

Successfully listed on Chinese

A-share market through Shanghai

stock exchange (code: SH 600537)

2011





\* As of the end of December 2023, the global cumulative shipments has been

**35GW** 

07

## **Business Presence**



- High-end production and test equipment
- Mass production of high-efficiency and low-attenuation PERC cells
- Selective emitter equipment and technology



- Complete product management and global certification systems
- 15 years of experience in project systems
- Customized and reasonable design to maximize returns



- The most advanced fully automated module packaging line in China
- The high-efficiency monocrystalline and polycrystalline PERC cell module mass production technology certified for the "Top Runner" Program
- The CNAS recognized and TUV and VDE certified module laboratory ensures module reliability



- Globally leading intelligent operation system
- Efficient and professional operation & maintenance team and technical team
- Regular inspections to improve user satisfaction



# Changzhou City "Major Contribution Award" and "Sales Scale Award"

Changzhou Municipal People's Government

### Changzhou "Five-Star Enterprise"

Changzhou Municipal People's Government

# Changzhou's third batch of digital transformation promotion centers Jiangsu Province

Bureau of Industry and Information Technology of Changzhou

# The fifth batch of pilot enterprises for the integration of industry and education in Jiangsu Province

Jiangsu Province Development and Reform Commission

# A demonstration enterprise with intelligent photovoltaic manufacturing in Jiangsu province

Jiangsu Photovoltaic Industry Association

# Third Prize of Jiangsu Photovoltaic Science and Technology Award

Jiangsu Photovoltaic Industry Association

### Four-Star Cloud Enterprise in Jiangsu Province

Department of Industry and Information Technology of Jiangsu Province

### Water-saving enterprise in Jiangsu Province

Jiangsu Provincial Water Resources Department

### A key internationally renowned brand fostered in Jiangsu Province

Department of Commerce of Jiangsu province

# Green building materials to the countryside activity promotion enterprises

Nine departments including Jiangsu Provincial Department of Industry and Information Technology, Development and Reform Commission, and Finance Department

### Jiangsu Province Quality Credit AA Grade Enterprise

Market Regulatory Administration of Jiangsu Province, Jiangsu Province Development and Reform Commission

# An intelligent manufacturing demonstration workshop in Jiangsu province

Department of Industry and Information Technology of Jiangsu Province

### "Guang Mang Cup" PV quality supplier

SMM International Photovoltaic Industry Summit

### "Global Top Performer" component manufacturer

Third-party photovoltaic testing agency PVEL

### "Top Brand PV MENA 2023"

European Photovoltaic Association

### The most influential PV module enterprise in the "Light Energy Cup"

Sobi Photovoltaic Network

### Top 100 Electronic Information Enterprises in China

China Electronics Information Industry Federation

### 5G factory in 2023

Ministry of Industry and Information Technology

### National Intellectual Property Advantage Enterprise

State Intellectual Property Office

### National High-Tech Enterprise

Ministry of Science and Technology, Ministry of Finance, State Administration of Taxation

### AEO Advanced Certification Enterprise

General Administration of Customs of the People's Republic of China

About EGING PV

Management

Development

Corporate Compliance

Line of Safety

People-oriented

# ESG KPIs in 2023

### **Operating performance**

Economic performance







Operating income

Total assets

Net profits attributed to shareholders of the listed company

RMB 8.102 billion

RMB 11.51 billion

**RMB 68 million** 



Tax paid

**RMB 54.7851 million** 



Loan interests paid to banks and other creditors

**RMB 15.8179 million** 



Employee renumeration

**RMB 367 million** 



Other social costs caused by environmental pollution or others

RMB 0

### **Corporate Governance Performance**

Corporate Governance Performance



meetings



Number of proposals reviewed at the shareholders' meeting



Number of board meetings

17

13



Number of proposals reviewed at board meetings

Number of shareholders'

56



Number of meetings of the Board of Supervisors

12



Number of proposals reviewed at the Board of Supervisors meetings

30





Proportion of key personnel at or above the middle level who signed the integrity commitment letter

100%



Number of anti-corruption training sessions



Number of employees participating in anti-corruption training



R&D input

RMB **367** million **4.53** %



R&D as % of revenue



Number of R&D personnel

405



Information security performance

Intellectual Property Performance

R&D personnel as % of total workforce

**15.32** %

Confirmed incidents of corruption



Unfair competition and antitrust violations



Complaints about infringement of customer privacy



Confirmed incidents of leakage, theft or loss of customer information

Number of patent applications during the Reporting Period



Growth rate of patent applications during the Reporting Period



Patent authorization growth rate during the Reporting Period



Number of patents granted during the Reporting Period

Number of invention patents granted

Number of utility model patents granted

Number of design patents granted



30

14

Business ethics performance R&D innovation performance

### **Environmental Performance**

### Carbon emission performance

By emission scope



2,922.41 tons of CO2 equivalent

Scope 1 emissions Scope 2 emissions

### Environmental management performance



Total investment in environmental protection

RMB 26.2426 million 0 times



Number of major hazards such as fires and accidents with serious impact on the environment

### Environmental management performance



Purchased electricity



Rooftop photovoltaic self-generated electricity

475,150.27 MWh 21,612.62 MWh



Total natural gas consumption

**756,222.00** cubic meters



Total steam consumption



Total gasoline consumption

0 cubic meters

### Waste management performance



Hazardous waste disposal rate

100%



Waste discharge meets standards

Yes

### Water resources management performance



Total water consumption throughout

4.5775

### **Social Performance**

Total number of employees in the parent company

8



Total number of employees in the parent company

2,635

### Employee employment performance



Total number of employees

2,643



Number of retired employees for whom the parent company and major subsidiaries need to bear expenses

1



# Employee rights performance



Labor contract signing rate

100%

Social insurance coverage

100%

# Employee training performance



Total number of employees receiving training

2,209 people

### Employee training performance



Total hours of training received by employees

2,745



Average number of training hours per employee

1.24



Hours of security-themed training per employee

2



Average number of hours of training for new employees

L.5 hours



Coverage rate of new employee training

100%



Percentage of employees receiving regular performance and career development appraisals

100%

### (Paternity) Maternity leave performance

Total number of employees taking (paternity) maternity leave during the Reporting Period

Total number of employees returning to work after holidays during the Reporting Period

Return rate

Female employees

15 people Male employees

Total number of returning employees still employed at the end of the Reporting Period



# 100%

Supplier management performance



Number of suppliers

175

ကို



Number of new suppliers added Number of suppliers eliminated during the Reporting Period during the Reporting Period





Number of supplier audits during the Reporting Period

45

کم



Number of domestic suppliers



Proportion of domestic suppliers

100%

### Occupational health and safety performance



Male employees

Female employees

Number of work-related casualties of the Company's own employees

examination



In-job occupational health

100%



15 people Male employees

Female employees

Number of work-related injuries among the Company's own employees



Post-job occupational health examination

100%



Incidence of occupational disease

0%



Number of major safety accidents and environmental pollution incidents



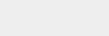
Pre-job occupational health examination .

100%



Number of safety drills

**16** 



Number of overseas suppliers

202

Proportion of overseas suppliers

0%

# Sustainable Development Management

# Sustainable Development Strategy



## Joining the United Nations Global Compact (UNGC):

In December 2023, EGING PV organized the application to join the United Nations Global Compact (UNGC), and officially signed as a member of the United Nations Global Compact (UNGC) in January 2024.

Joining the United Nations Global Compact is another important action taken by EGING PV to actively respond to the global sustainable development agenda. As an important member of the UNGC organization, EGING PV will work with industry partners to advance the realization of the global sustainable development process and jointly create responsible and sustainable corporate governance and business practices.



Interpretation: What is the United Nations Global Compact(UNGC)?

UNGC is the world's largest international organization promoting sustainable corporate development, with more than 24,000 companies and other stakeholders from nearly 170 countries. These participants commit to implementing the Global Compact's 10 principles, which are based on UN conventions and cover human rights, labor standards, the environment and anti-corruption, and to report on progress annually. UNGC continues to help companies integrate the ten principles of the Global Compact into their strategies and operations, and to jointly advance broader UN goals (such as the United Nations Sustainable Development Goals (SDGs)) through collaboration and partnership.

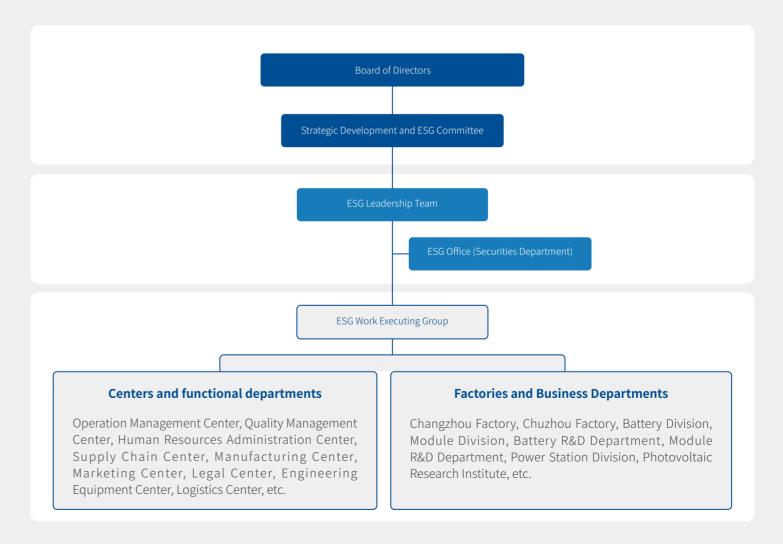
### **ESG Governance**

In order to meet the needs of the Company's strategic development, optimize and improve the ESG governance structure and enhance the Company's strategy and ESG management level, EGING PV has gradually established and improved its ESG work system. In 2023, a three-tier ESG governance structure covering the "decision-making level, management level, and execution level" is planned to be established. We have comprehensively reviewed and updated our ESG governance system.

On October 16, 2023, the 30th meeting of the 7th Board of Directors of the Company reviewed and approved the Proposal to Change the Name of the Strategic Development Committee of the Board of Directors of the Company and to Revise the Rules of Work of the Strategic Development Committee of the Board of Directors and the Proposal to Revise Certain Governance Systems of the Company. The Board Strategic Development Committee was renamed the Board Strategic Development and ESG Committee. The Board Strategic Development and ESG Committee conducts research and guidance on issues related to sustainable development.

In addition, in order to better implement the Company's sustainable development strategy and goals, we further established ESG work leadership group, with an ESG work office responsible for ESG-related work coordination and management. At the executive level, an "ESG Implementation Team" was set up across all centers and functional departments, as well as subsidiaries and business divisions, to coordinate the implementation and execution of ESG work within the Company.

### **ESG Governance Chart**



· Digital construction



### Innovation drives development







- R&D innovation
- · Green product innovation
- Circular economy
- · Intellectual property
- protection
- Industrial cooperation and development

### Creating long-term value





- Product quality and safety
- Supplier management
- Customer service

### Corporate compliance management





- Corporate governance system
- Risk management and internal control
- · Anti-corruption
- · Privacy and data security

### Protecting ecology







management



- Greenhouse gas emissions and management
- Energy management
- Waste discharge and management
- · Water consumption and

### Stick to the bottom line of safety





- Employee occupational health and safety
- Clean manufacturing

### Adhere to people-oriented











- Labor management
- Employee Care
- Staff training and career development
- Charity and volunteer service

### Communication with Stakeholders

EGING PV attaches great importance to the concerns and demands of stakeholders. By establishing effective communication channels and mechanisms for stakeholders, it timely transmits and discloses information of concern to stakeholders and listens to their feedback and suggestions.

After comprehensive analysis and research, the stakeholders of EGING PV mainly include shareholders and investors, regulators, exchanges and rating agencies, customers, suppliers, contractors and other partners, communities, public society and media, employees, nongovernmental organizations, industry associations, etc.



Main stakeholders	
Expectations and demands	



Shareholders and

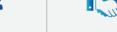
investors







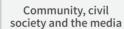
Customers





Suppliers, contractors

and other partners









### Non-Governmental Organizations



### **Industry Association**

Main

communication

method

Economic performance Risk management Management structure Business compliance R&D innovation

Shareholders' meetings

Periodic report

disclosure

Daily communication

(phone calls, emails and

meetings)

Compliance management Legal employment Business ethics

Disclosure of

information

Compliance training

Questionnaire survey

Regulators, exchanges

and rating agencies

Customer privacy and information security Customer service Product quality Safety product performance

Global service platform

Customer visit

Quarterly operation

communication meeting

Customer satisfaction

survey

Sustainable procurement Business ethics Responsible production

Regular evaluation and review Supplier conference Daily communication (phone calls, emails and

meetings)

Community project cooperation Charity activities Daily communication (phone calls, emails and meetings)

Charity and public

welfare Employee rights

protection

Conservation of

ecosystem

Resource recycling and

waste disposal

Employee health and safety Employee welfare rights protection Staff training and development

Employee communication group Company opinion email Company feedback service number Employee satisfaction survey questionnaire

Water management **Energy Management** Response to climate change Waste management Legal employment

Disclosure of information Daily communication (phone calls, emails and meetings)

Technological innovation and IPR protection Product management

Exhibition International standard setting Academic exchange activities Industry association meetings

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# **Materiality Issues Evaluation**

In order to deeply explore the core expectations and demands of stakeholders and improve the pertinence and materiality of ESG report of EGING PV, the Company systematically carried out the three-stage work of "Identification of Issues - Research on Issues - Screening of Issues":

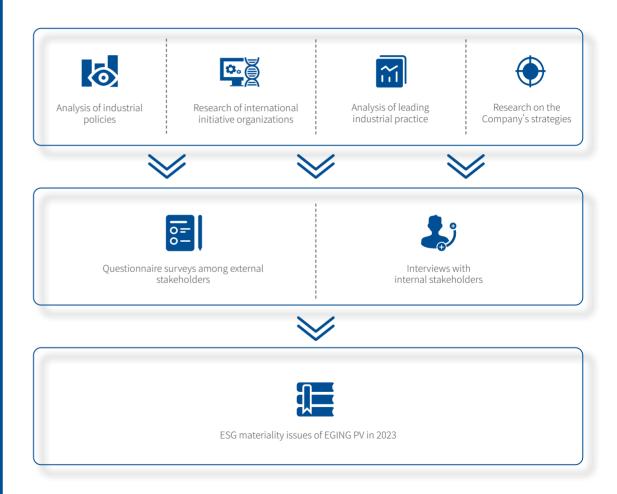
Issue identification stage Based on the analysis of industrial policies, research of international initiative organizations, analysis of leading industrial practice and research on the Company's strategies, the Company defined the ESG issue list related to its operations.

Issue research stage We created and distributed the 2023 ESG Materiality Issues Questionnaire to eight dimensions of stakeholders: governments and regulators, shareholders and investors, customers, employees, suppliers and partners, communities, media and others, and received 92 valid questionnaires. At the same time, we conducted communication and interviews with 23 important functional departments, molecular companies and factories, such as Securities Department, Marketing Department, Information Management Department, Procurement Department, Administration Department, System Certification Department, Operation Management Department, Quality Control Department, Safety and Environment Department, Hydroelectricity Management Department, Internal Audit Department, Human Resource Department, After-sales Service Department, Battery Department, Battery Research and Development Department, Component Department, Component Research and Development Department, Customer Service Department, Power factory Department, Finance Department, Labor Union, Changzhou factory, Chuzhou factory and other important departments, molecular companies and factories, to carry out a comprehensive analysis of the internal and external research.

Issue screening stage

By collecting opinions among employees and suggestions from external stakeholders, the Company evaluated the impact of different issues respectively on its operations and on its stakeholders, built a materiality matrix, and finally identified 22 ESG issues of different priority levels.

### **Materiality issues evaluation process:**



Message from Sustainable Development Innovation-driven Corporate Compliance Protecting Green Stick to the Bottom Adherence to Creating Long-About EGING PV About the Report Appendix the Chairman Ecology Management Development term Value Operations Line of Safety People-oriented

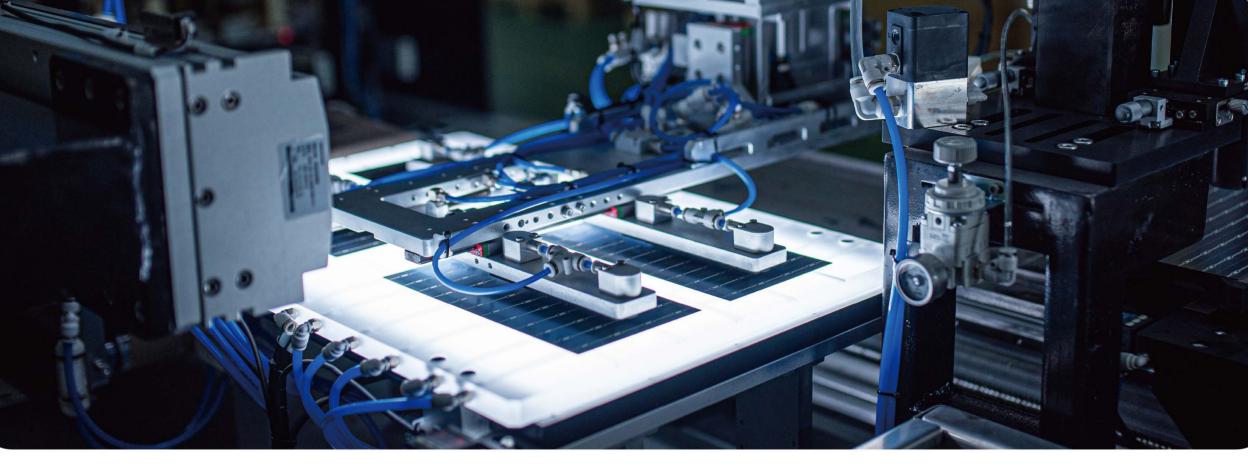
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### **Materiality Issues Evaluation Matrix**



### **Evaluation results**

Disclosure level	Amount	Issues
Important disclosure	8	Product quality and safety, industrial cooperation and development, R&D innovation, customer service, energy management, green product innovation, waste discharge and management, supplier management
Relatively important disclosure	11	Employee occupational health and safety, greenhouse gas emissions and management, intellectual property protection, risk management and internal control, corporate governance system, clean production, privacy and data security, anti-corruption, employee training and career development, water consumption and management, employee care
General disclosure or non-disclosure	3	Digital construction, circular economy, charity and volunteer service





# INNOVATION-DRIVEN DEVELOPMENT









- R&D INNOVATION
- GREEN PRODUCTS AND SOLUTIONS
- INTELLECTUAL PROPERTY PROTECTION
- INDUSTRIAL COOPERATION AND DEVELOPMENT

# **R&D & Innovation**

# Leader in PV technology

Currently, EGING PV has a R&D team of more than 400 members, comprising about 15% of its workforce, and has applied for more than 600 patents and invested RMB 3.67 million in R&D over the past 5 years.

Over the years, EGING PV has been on the list of "World's Tier 1 PV manufacturers" by Bloomberg New Energy Finance, a global authoritative rating agency, and is also one of the TOP10 PV brands in China and one of the "Top Runner" photovoltaic base suppliers in China. EGING PV has the "International science and Technology Cooperation Base" authorized by the International Science and Technology Cooperation Department of the Ministry of Science and Technology, postdoctoral research workstation, Jiangsu Photovoltaic Engineering Research Institute and other scientific research and development platforms. The Company is home to some research and development platforms, such as the international technological cooperation base authorized by the Department of International Cooperation of the Ministry of Science and Technology, the post-doctoral research station, and Jiangsu Photovoltaic Engineering Research Institute.



R&D team

400+members



Proportion in the total workforce

15%



Cumulative patent applications

600



Total R&D input over the past five years exceeding

 $\mathsf{RMB}\,\mathbf{367}\,\mathsf{million}$ 



### **R&D Platform Construction**







### Platform 1: Jiangsu Enterprise Technology Center

Since its establishment, Jiangsu Enterprise Technology Center has cultivated a highly experienced research team. It introduced 6 doctors, 39 masters and 7 senior experts. At present, the research team is mainly composed of R&D personnel, senior technical workers, external experts and advisors, and undergraduates trained together with universities like Shanghai Jiao Tong University and Jiangsu University. It focuses on highefficiency and energy-saving sintering technology and chaintype EVA curing technology, and has designed some test contents not covered by IEC61215 and IEC61730 standards to tighten control over product quality.

### Platform 2: Jiangsu (Eging) PV Engineering Institute

Jiangsu (Eging) PV Engineering Institute was established in July 2011, with a total investment of RMB300 million. The Institute has integrated scientific and technological innovation resources, introduced 120 advanced instruments, including solar energy simulators and local discharge testers, and completed the construction of 7 R&D platforms, namely special material R & D center, special equipment R & D center, new product development center, system engineering research center, test center, industrialization center, and reliability test and analysis center. It has focused on monocrystalline silicon cell efficiency improvement and material research, HJT and TOPCon cell research, module reliability test and application scenario test, photovoltaic system and ground power station, roof power station development technology and other key technologies and industrialization technology research. It strives to become a base for the design, development, manufacturing and test of new products in the Jiangsu provincial or even national PV industry.

# Platform 3: Jiangsu Solar Energy Materials Engineering and Technology Research Center

Jiangsu Solar Energy Materials Engineering and Technology Research Center was established in May 2009, with an additional investment of RMB20 million, RMB8 million of which was used to purchase advanced R&D instruments and equipment. It commits to the research on large-area and high-efficiency crystalline silicon PV cells, localization of advanced MW crystalline silicon PV cells, application of solar energy systems, and new-type thin-film cells. It will introduce the talent mobility mechanism, maintaining a certain number of engineering research, development and management staff, while leveraging favorable policies to attract relevant talents from both home and abroad and encourage them to commercialize research outcomes and conduct industrialization-oriented development and tests.





# Platform 4: Post-doctoral research station

On June 19, 2008, the Company was approved by the Ministry of Human Resources and Social Security to set up a state-level post-doctoral research station. Setup of the postdoctoral research station is aimed to attract, train and use outstanding innovation talents, introduce the mechanism that facilitates the flow of talents, and promote the collaboration among enterprises, universities and research institutes. The Company has in place detailed rules and a complete system for the management of post-doctoral research, and makes adequate efforts to train and use post-doctoral researchers, with a particular focus on the innovation abilities of post-doctoral researchers. The Company takes active part in the training activities organized for the post-doctoral management personnel of the organizations where new research stations are set up, and works to build a post-doctoral management team with a correct political stance, outstanding professional skills and strong service awareness.

# **Platform 5: International Technological Cooperation Base**

From June 2008 to June 2010, EGING PV undertook a state-level international technological cooperation project, cooperating with Noritake on the development of "mesh belt-free high-temperature sintering furnaces" to improve the performance of existing sintering furnaces. On September 19, 2008, EGING PV was named by the Department of International Cooperation of the Ministry of Science and Technology as an "International Technological Cooperation Base". The awarding ceremony was held at the Science & Education Town, where Meng Shuguang, deputy director-general of the Department of International Cooperation of the Ministry of Science and Technology, awarded the plaque to us.

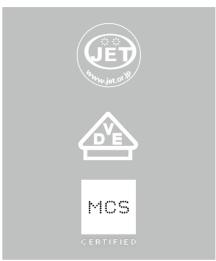
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# Cutting-edge Manufacturing Technology

In recent years, EGING PV has continued to increase capital and expand production, of which the production line is highly compatible with the latest technology of M10/G12 and the 5G intelligent manufacturing project of efficient modules is put into operation and compatible with the latest technology of TOPCon and HJT. Series module products have passed VDE, TUV, CE, MCS, CEC, UL, INMETRO, CQC and other international authoritative certification. With high-quality products and hassle-free after-sales services, EGING PV has won widespread recognition and praises from users around the world.

The Company's cell production workshop adopts MES+AGV intelligent management mode to achieve the digital and automated operation. Moreover, EGING PV has collaboratively developed the advanced process TOPCon and HJT technology. The module production workshop adopts intelligent production line and automatic optical inspection and judgment equipment (based on AI technology) to detect the defects of module products intelligently, significantly enhancing the test efficiency and improving product yield. Intelligent production line equipment takes precise positioning welding solutions to achieve millimeter-level precision positioning required for MBB module production.









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### **R&D & Innovation Case**

### TOPCon series product project case



In 2023, with several years of development, the mass production efficiency of PERC cells increased to 23.6%, and will see limited room and great difficulty for further improvement given the theoretical efficiency limit of 24.5%. By contrast, with a unique production process, TOPCon cells enjoy a theoretical efficiency limit of 28.7%, close to the theoretical efficiency limit of crystalline silicon cells, and hence a huge potential for improvement.

Since 2023, EGING PV has closely tracked market demands, and started the R&D and production of N-type solar crystalline silicon modules. As of the end of 2023, the mass production efficiency of the high-efficiency TOPCon cells newly developed by EGING PV was up to 26.3%. The mass production efficiency of enveloped modules was up to 22.8%; the power of the same-type products increased by 25-30W, and the wholecycle power generation improved by 3%. By far, EGING PV has mass produced and shipped N-TOPCon cell modules (Star Pro series), which are based on N-type silicon wafers and integrate the SMBB technology, lossless cutting technology, double-sided and double glass technology and large-size design. Characterized by big power, low cost and high reliability, the modules fit in a diverse range of scenarios, such as surface power stations, industrial and commercial rooftops, complementation between farming and PV power generation, and complementation between fisheries and PV power generation, and are widely received among customers both at home and abroad.



The mass production efficiency of the TOPCon cells

26.3%



The mass production efficiency of enveloped modules

22.8%



The power of the same-type products increased by

25-30W



The whole-cycle power generation improved by

3%

### Directional reflective film technology project case



With the continuous advancement of photovoltaic technology, the efficiency of PV modules is on the rise, and the development of photovoltaic industry in China is becoming more mature. "Decreasing costs and increasing efficiency" has become the mainstream melody for the development of photovoltaic industry. Higher efficiency, higher power and lower cost have become the common pursuit of the industry.

With a view to fully enhancing the power generation of each battery in the modules and maximizing the utilization of PV energy, EGING PV started to develop gap film series products in 2023, requiring that the light transmittance and power of the modules can be effectively enhance while maintaining the double-sided rate and reliability of the modules.

Gap directional and reflective film, referred to as gap film, is a type of microstructure aluminum film. The gap film is located between the backglass cell plates or between the strings, and can reflect the sunlight in the area to the nonlight absorption area. In 2023, EGING PV started to work on the gap film project, conducting enveloped research and sample proofing for the gap film. After reliability tests, the sample modules met the test requirements. For the sametype products, compared with the white glaze modules, the gap film modules could enhance the power by 2-3W, and the trial mass production was up to the standards. So far, the Company has completed the workshop transformation, and introduced gap film coating equipment to satisfy the gap film needs of Star Pro series and Aurora Pro series products. After the gap film technology is applied, according to the calculation of 1GW PERC module, the annual power generation capacity can be increased by about 8,000,000kwh, compared with the white glaze modules, which can truly achieve the green and low-carbon development.

# **Green Products and Solutions**

# Green product certification

EGING PV has always vigorously upheld the concept of green development, adhered to the working principles of breakthroughs in key areas, innovation-led, steady progress and market-oriented, and helped the country to achieve the "carbon peaking and carbon neutrality" goals, advancing China's green development to a new level. In October 2023, EGING PV won the global green product certification certificate of photovoltaic industry issued by China Quality Certification Center (CQC).



### Interpretation: What is a "green product"?

"Green products" refer to high-quality products that meet the environmental protection requirements in the whole life cycle, do no harm or little harm to the ecological environment and human health, and consume less resources and energy. Its definition highlights two internal implications: Firstly, in time of assessing green products, we must adhere to the concept of life cycle and define the system boundary. We can not simply deal with them in segments, and omit important data and information related to the process. Secondly, the index system of green products is a comprehensive index system. In addition to the quality indicators concerned by consumers or buyers, its environmental protection, low-carbon, harmlessness, energy-saving and other indicators can serve as a necessary supplement. Green product certification is positioned for green and highend products, and certification project indicators are generally higher than the existing relevant industry standards.



Innovation-driven

Development

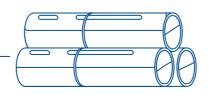
# **Green Building Materials Certification**

In response to the national "carbon peaking and carbon neutrality" goals, EGING PV takes concrete actions, making green building materials for green buildings, to support carbon peaking and carbon neutrality. In December 2023, EGING PV won the green building materials product certification certificate of PV modules issued by China Quality Certification Center (CQC).



# Interpretation: What is "green building materials"?

Green building materials, also known as ecological building materials and eco-friendly building materials, refer to non-toxic, non-hazardous, non-radioactive building materials conducive to environmental protection and human health. The production of green building materials using clean technology could reduce the consumption of natural resources and energy and consume a lot of industrial or urban solid wastes. The green building materials certification system is jointly established by the State Administration for Market Regulation, the Ministry of Housing and Urban-Rural Development, and the Ministry of Industry and Information Technology pursuant to the Opinions of the General Office of the State Council on Establishing a Unified System of Standards, Certifications and Labels for Green Products, and implemented uniformly across China.





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# **Green Recycling Materials**



**Case: Polyurethane composite frame** 

In the photovoltaic industry, frames are an integral part. Traditional frames are usually made of metal materials such as aluminum alloy or steel, but these materials have some weaknesses such as large weight, difficult installation, poor weather resistance and high recycling difficulty. Therefore, the emergence of polyurethane composite frames provides a new option for the photovoltaic industry.

The polyurethane composite frames can realize the recycling of physical composite materials, the recycling of composite materials to composite materials and the recycling of composite materials to raw materials. In other words, wasted or old GRPU composite profiles are cut and crushed and then bonded and pressed or formed into required products by directional chemical decomposition method. In addition, the composite frames can also be recycled, which can be processed into primary raw materials of resin and glass fibers for further use through directional chemical decomposition method, thus fully achieving green recycling.

In 2023, EGING PV upheld the concept of green and low-carbon development and imported composite materials for module products, which passed load test, DH1000 test and other tests after the proofing test. According to the single test below 140 °C, 1M profiles can withstand the load of 20Kg, and do not have significant deformation for 8h, with the corner code drawing force of about 150N, and the bonding force of about 90N/cm between the frame and silicone, the surface film hardness of 5HW, and the internal hardness of about 8HW. Compared with the steel frames, the modules with the composite frames are featured with lower fragment rate, less power attenuation, and higher recycling rate, which will be put into mass production in the future.



No significant deformation

8h



Corner code drawing force of about

**150N** 



Bonding force between the frame and silicone

90N/cm



Surface film hardness



Internal hardness

**5HW 8HW** 

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Appendix

# **Green Product Design**



Case: Rectangular cell module design

In the window period of N-type photovoltaic reform, advanced technologies are emerging in an endless stream, and innovative projects are blooming in multiple aspects, among which rectangular silicon wafer has become a new trend and a significant direction of technological innovation in the photovoltaic industry. From 2023, the concept of rectangular cell modules started to attract the attention of the photovoltaic industry, and there were various exhibits at the SNEC exhibition held in May. Compared with traditional square silicon wafers, rectangular silicon wafers can get rid of the correlation between wafer area and wafer thickness, and can achieve super-sized and ultra-thin silicon wafers and design optimization, so as to lead to lower production costs and higher power, and to enhance customer value.

EGING PV has carried out the rectangular cell module project simultaneously. The size of each rectangular cell has not been unified, ranging from 210mm\*182mm, 182mm\*186.8mm, 182mm\*191mm, 182mm\*183.75mm and 182mm\*185.3mm to 182mm\*199mm. Through multiple considerations and selections, EGING PV finally determined the three cell sizes selected for its products: 182.2mm\*188mm, 182.2mm\*191.6mm and 182.2mm\*210mm, corresponding to the Star Pro+ series and Aurora Pro+ series products. So far, EGING PV has completed the enveloping process research, designed the layout diagram of outputting rectangular cell modules, purchased the corresponding materials, adjusted the workshop tooling and process parameters, and finished the proofing test.

On the one hand, rectangular cell modules can help achieve the cost optimization of PV manufacturing integration. On the other hand, they can achieve the maximum utilization of container space. Therefore, it's predicted that it will become the best choice to replace 182mm\*182mm cells. Perhaps in the near future, rectangular modules will occupy the 182-type product market and become the mainstream of the market.



Picture of EGING PV Rectangular Cells

# **Green Product Application**



### **Case: BIPV Star Rooftop system**

During the annual NPC and CPPCC sessions, General Secretary Xi pointed out that we should actively advance the green development and energy revolution. The development of photovoltaic energy has entered the national action program and the application scenario has been further expanded, and nearly zero energy buildings and zero energy buildings and even power-generating buildings have become the general trend. In an era when industrial and commercial rooftops are to flourish, EGING PV independently developed the BIPV Star Rooftop Solution, to combine PV modules with buildings, achieve self-generation and supply of power by buildings, and help reduce carbon emissions related to buildings.

In 2023, after the R&D completion of Star Rooftop products, EGING PV launched a BIPV demonstration project by installing the PV systems on about 100,000 m2 roofs of its own plants. With an installed capacity of 18.3MW, it's a super-large power station on industrial and commercial roofs. At the beginning of 2024, it will be connected to the grid, and it is expected that the annual power generation of 18.3MW BIPV roof project will be 19.22 million KWH, with the total power generation of more than 400 million KWH. The new technology and new products will help to boost green development and low-carbon transformation.



Photovoltaic

installed capacity



Annual average power generation of BIPV roof project

18.3MW

19.22 million kWh



Total power generation

In the BIPV Star Rooftop Solution, the color steel tiles are integrally molded; the galvanized aluminum and magnesium material adopted features high strength and strong corrosion resistance, and is of the same service life as the modules, greatly reducing the cost of replacing metal rooftops. The 360° vertical lockrand fundamentally solves the problem of water leakage. The T-shaped convex features a bigger contact surface and safer installation, while sharing the pressure on the module surface and making the structure solider. The double-sided self-locking design provides super-strong load resistance. Moreover, the guiderail-free and quick assembly design significantly lowers the labor intensity in construction, saves brackets and labor cost, and improves construction efficiency. The modules are laid more densely, with the installed capacity on the same rooftop area increasing by 15%-30%, fully utilizing rooftop resources.

After the completion of the project, it's expected that the project will have the average annual power generation of 21.067 million KWH, with the carbon dioxide emission reduction of 21,004 tons and sulfur dioxide emission reduction of 202 tons.



Picture of 18MW BIPV Project at EGING PV Chuzhou Base

# **Intellectual Property Protection**

About EGING PV

Since its establishment, EGING PV has attached great importance to intellectual property management, contributing to a high-quality development pattern of intellectual property from the formulation of intellectual property strategy to the promotion and implementation of the strategy. At the same time, the intellectual property strategy works together with the Company's business strategy and R&D strategy to benefit each other, and plays a big role in supporting the Company's business development.

### Intellectual property milestones of EGING PV:



In 2013, EGING PV passed the implementing standards of the intellectual property management system;



**In 2014**, EGING PV became an advanced demonstration unit of enterprise intellectual property management standardization in Jiangsu Province, and officially established the intellectual property management standardization system;



In 2015, EGING PV undertook the Jiangsu Province enterprise intellectual property strategy promotion plan;



In 2016, EGING PV jointed hands with Hohai University to establish the "High-efficiency Crystalline Silicon Cell and System High-value Patent Cultivation Demonstration Center";



From 2014 to 2023, EGING PV was consecutively awarded "Jiangsu Province Key Cultivation and Development of International Famous Brand;



In December 2023, China National intellectual Property Administration issued the 2023 Evaluation Results of National Intellectual Property Advantage Enterprises and Demonstration Enterprises. The 5 enterprises in Changzhou were selected as national intellectual property demonstration enterprises, and the 17 enterprises as national intellectual property advantage enterprises. Among them, Changzhou EGING PV Technology Co., LTD. (hereinafter referred to as "EGING PV") was honored on the list and was rated as "a national intellectual property advantage Enterprise", and it's also the only newly-identified national intellectual property advantage enterprise in Jintan District this year.



Some Patents of EGING PV



Some Certification Certificates of EGING PV



# Interpretation: What is "an advantage enterprise and a demonstration enterprise of national intellectual property"?

National intellectual property advantage enterprises and demonstration enterprises are the highest honors and ratings given by the state to enterprises for their good intellectual property management, which are mainly awarded to the enterprises which are engaged in industrial fields of national key development, can undertake major national and key industrial development projects, have independent intellectual property capabilities, actively carry out intellectual property protection and application, establish a comprehensive intellectual property management system and mechanism, with comprehensive intellectual property strength.

This selection is another major intellectual property honor for EGING PV after winning the "Jiangsu Province High-value Patent Cultivation Demonstration Center", which also indicates that EGING PV has always been an industry leader in terms of intellectual property creation, application, management and protection. In the future, EGING PV will make more efforts for intellectual property management, enhance the comprehensive competitive advantage of intellectual property, and will strive to become an innovative enterprise characterized with strong intellectual property awareness, full innovative vitality and remarkable transformation effect, contributing to the high-quality development of China's photovoltaic industry!

As of the end of the Reporting Period, EGING PV has had 370 valid patents, including 144 valid invention patents (2 PCT international patents) and 20 valid registered trademarks, including 1 EU trademark. Over the years, the project products independently developed by EGING PV have won some honors such as the national-level key new products, the National Torch Plan industrialization demonstration project, and the provincial-level major technological result commercialization project.

# **Industrial Cooperation and Development**

# Industrial cooperation alliance



Case: Won the Excellent Supplier Award of SPIC Hubei Company

On June 8, 2023, the first supplier meeting of SPIC Hubei Company for 2023 was officially held, where EGING PV was invited to participate and won the Excellent Supplier Award.



As a long-established photovoltaic enterprise with a history of 20 years, EGING PV has started cooperation and development with SPIC Hubei Company since 2014. During the cooperation period of nearly ten years, EGING PV has supplied more than 500MW. At this meeting, SPIC Hubei Company officially signed a strategic cooperation agreement with EGING PV, opening a new chapter of jointly seeking green development.



### Case: Won the title of the leading enterprise of digitalization and intelligence

In August 2023, the "2023 Global Business Innovation Conference" sponsored by Yonyou was held in Shanghai, with the theme of "Data-driven and Intelligent Operation", which brought together many industry leaders and business elites from all walks of life, such as China Telecom, Tianyi Cloud, Ping An Bank, Amazon Cloud Technology and other ecological partners and pioneer enterprises, to make the indepth discussion of multiple topics such as comprehensive data services that enterprises face in terms of digitalization and intelligence, and AI popularization and application.





The conference was held on the occasion of Yonyou's 35th anniversary. The sponsor took this opportunity to select 35 digital and intelligent leaders. As a strategic partner of Yonyou and a representative enterprise in the PV industry, EGING PV is also in an attempt to upgrade the business model and empower the enterprise development through digital tools. EGING PV successfully won the honorary title of "a digital and intelligent leading enterprise".

# **Industrial Technology Exchange**



### Case: Invited to attend 2023 TUV Rheinland Greater China PV Energy Storage Advanced Technology Seminar

In order to empower the green and low-carbon sustainable development and market application of the photovoltaic industry, the seminar on advanced PV energy storage technology hosted by TUV Rheinland Greater China (hereinafter referred to as "TUV Rheinland") and collaboratively guided by the Administration Committee of Changzhou Tianning Economic Development Zone was held in Changzhou on September 26-27, 2023. Mr. An Quanchang, technical director of EGING PV modules, was invited to attend the seminar, discussing the latest PV technology and its development trend with well-known PV institutions and enterprises as well as experts and scholars from academia from home and abroad.

Mr. An Quanchang, Technical Director of EGING PV modules, was invited to give a keynote report titled the Research Status and Trends of Reliability Evaluation of Photovoltaic Modules by acting as the only representative of photovoltaic enterprises in Changzhou in the main venue of modules, which focused on the three aspects of "reliability is the guarantee of industrial development; the direction and progress of reliability evaluation, and the status and prospect of PV module experimental methods.















# **CREATING LONG-TERM VALUE**









- PRODUCT QUALITY AND SAFETY
- GLOBAL CUSTOMER SERVICES
- SUPPLY CHAIN MANAGEMENT
- DIGITAL CONSTRUCTION

# **Product Quality and Safety**

### **CNAS** laboratory construction

Established on May 1, 2007, EGING PV module testing laboratory is mainly to test the raw materials of modules and module products, providing reliable quality assurance for the Company's products. With more than 100 sets of testing equipment and instruments, the laboratory can conduct professional tests of module raw materials and PV module products, embracing the testing capability of 20 large tests and 96 small tests. In October 2011, the module testing laboratory was awarded the National Laboratory Accreditation Certificate by China National Accreditation Service for Conformity Assessment (CNAS), marking that the laboratory is entirely in line with ISO/ IEC17025 and CNAS-CL01 standards and requirements. In addition, it's also the TDAP laboratory of the international photovoltaic certification body VDE.

#### Product safety and reliability management

Eging PV Photovoltaic Institute has a complete management system and management documents for laboratory reliability tests, such as "Laboratory Test Process Management System" and "Public Financial Management and Maintenance System of Photovoltaic Institute". In terms of product reliability, the Institute conducts product tests in strict accordance with the IEC61215 and IEC61730 requirements, so as to ensure that the Eging PV products meet the reliability requirements of the International Electrotechnical Commission (IEC).

In the process of R & D and mass production, DFMEA\PFMEA tool may be used for experimental design and mass production risk prediction, which can effectively reduce and prevent risks. In addition, the R & D project process follows the IEC62941 process to achieve the better project management.

#### Product traceability management

Digital traceability system is a product traceability management system based on digital technology, also known as digital source tracing system, which is used to track and manage all aspects of the product production process. Through the collection, recording and analysis of production-related data, the system can realize the overall monitoring of raw materials, production process, product after-sales and other links, as well as product tracking and backtracking.

#### Raw materials and OEM traceability

It's to identify and record raw materials before they are put into production. Bar codes, RFID and other technical means can be used to record the batch information of raw materials, production time, suppliers and other key information.



#### **Production Traceability**

#### **Production plan**

ERP establishes production plans and instructions, defines the production process and flow of products. Through the digital system, it issues production instructions to the MES system, ensuring the standardization and normalization of the production process.

# Product packing and warehousing

MES can record box code information, including outgoing product information, and outgoing product type and grade. It also record outgoing information for each shift in real time. The data means a great deal for product traceability and can help determine the source and flow direction of products.

## Digital traceability and monitoring

MES conducts the real-time monitoring of each stage of the production process. It collects data and uploads the data to the database, and records and tracks the information of each link of products, to achieve the whole-process monitoring and traceability of product quality. In addition, it also makes the digital processing of the data to enhance management efficiency and accuracy.

#### **Equipment monitoring**

Monitor the status and operation situation, failure information and maintenance & repair records of production equipment to detect equipment failures and repair them in a timely manner, ensuring the normal operation of equipment.

#### Production data monitoring

Monitor the completion situation of production schedule and production plan, adjust the production plan in time, and ensure that the production tasks are completed on time.

#### Quality monitoring

Monitor product quality and all quality indicators in the production process, detect quality problems in time and take measures to ensure that product quality meets the standards.

#### **Process monitoring**

Monitor production process parameters and the changes in production environment, and adjust the process parameters and production environment in time, to ensure the stability and reliability of production process.

## Energy consumption monitoring

Monitor energy consumption in the production process, identify energy-saving potential in time and take measures to cut production costs.

# Through the overall monitoring and data collection of the production process, ensure the integrity of the life cycle management information. The production traceability and abnormality investigation can help to quickly locate the reasons for the anomaly, thus enhancing the production efficiency and product quality and reducing production costs.

# Product after-sales traceability inspection

After receiving complaints or problems from customers, record relevant information, including product model, purchase time and problem descriptions. Based on the products' unique identification code or batch information, trace the production data of such products to determine possible links related to problems. In view of the possible problems, make the in-depth analysis, sum up the experience and lessons according to the evaluation results, and continuously improve product design, production process and after-sales services, so as to enhance product quality.



## **Global Customer Service**

#### After-sales service

After years of on-site efforts, EGING PV has established a sound after-sales service mechanism and process. Even in the highly competitive photovoltaic market, EGING PV still stands at an advantage in after-sales services, which is especially demonstrated in the enthusiasm and timeliness of handling problems. According to statistics, the total business trips of after-sales service personnel in 2023 is up to 7,000 working days, with the per capita business trips of more than 260 days and the number of service sites exceeding 100.

#### Three main advantages of EGING PV aftersales services:



24-hour response speed 7\*24\*365 seamless after-sale services

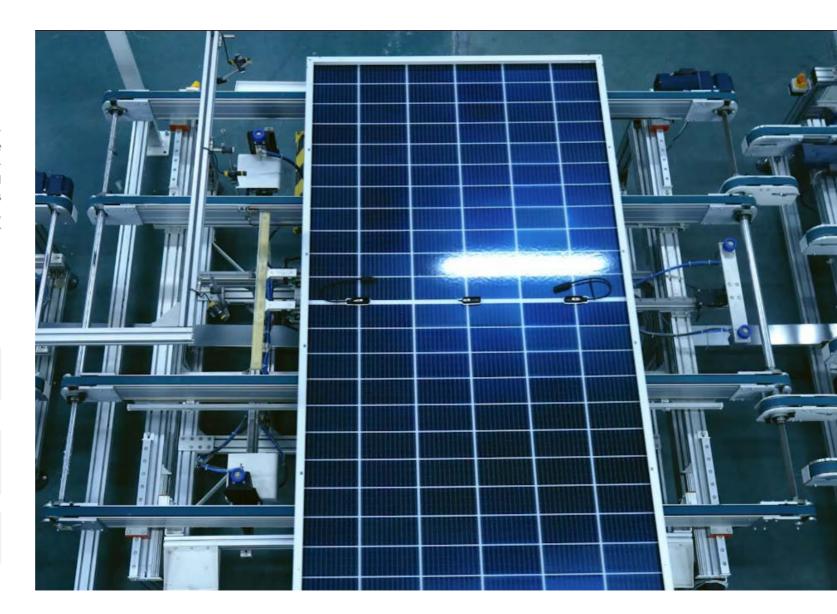


The project commissioning technical support team Provide on-site technical support for up to 265 days per year



Active return visits

Conduct regular quality visits to ensure safety and quality



Creating Long-

term Value

# **Supply Chain Management**

### Sustainable procurement management

EGING PV implements the whole process management of suppliers, and has developed a set of scientific and effective management methods from supplier access, supplier evaluation and supplier appraisal to supplier withdrawal. In addition, EGING PV has required suppliers to sign the "Supplier Code of Business Conduct", "Commitment for Non-use of Conflict Minerals", "Integrity Agreement" and other normative documents, enabling the Company to tighten the supervision in raw materials procurement.

### Supplier social responsibility assessment

The Company conducts social responsibility training for newly-introduced suppliers, requires suppliers to make social responsibility commitments, promotes suppliers to truthfully perform their responsibilities in terms of environment, labor, human rights, and business ethics, and continuously improves the duty performance efficiency. EGING PV gives priority to the suppliers with better social responsibility performance. In 2023, EGING PV conducted a social responsibility assessment for qualified suppliers and signed a social responsibility commitment with them, and the proportion of the suppliers passing the performance assessment reached 100% during the Reporting Period.

#### **Avoid conflict minerals**

The Company has required its suppliers to sign a Statement of Commitment for Non-use of Conflict Minerals, which includes:











The metals used or contained in all products or modules delivered by the Company are not "conflict minerals" from the Democratic Republic of the Congo (DRC) and its neighboring countries and any areas controlled by armed forces in such countries;

The Company shall intensify the management of suppliers, formulate relevant management systems and regulations to effectively identify and trace the source of raw materials, ensure the legitimacy of raw material sources and prevent the use of conflict minerals, and shall agree to accept the audit of the source of raw metals by stakeholders;

The Company shall truthfully fill in and reply to the questionnaire and provide other information about "conflict minerals" as required, make a promise on the authenticity, accuracy and completeness of the replies and the data provided, and agree that stakeholders can send the questionnaire or related information to customers or other institutions

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# **Digital Construction**

For EGING PV, digital and intelligent transformation is the only path to development. As early as in 2016, EGING PV attempted to launch the ERP systems in some of its modules. After 2021, EGING PV's annual performance growth continued to double, and the Company has entered a stage of rapid development. In 2022, with a view to meeting the needs of efficient management and operation in the context of the rapid growth, the Company's Information Department formally proposed the integrated management strategy of MES+ERP, and strived to build the isolated system into an integrated platform and to raise the overall information and intelligent level to a new height.

After one-year efforts, EGING PV completed the acceptance of the intelligent manufacturing integrated system project, and realized the docking of the three workshops and the three sets of MES systems. In addition, through innovation, EGING PV has achieved double cost accounting, including each piece (module) cost accounting and per watt (power) cost accounting, which supports order cost, quotation cost and other multi-dimensional and multi-level analysis, control and warning. EGING PV's information technology has updated from ERP1.0 to ERP2.0. The project team arranged and standardized more than 20 business processes in the implementation course: such as R & D work order control, OEM business buyback, quality inspection, and work order non-crossmonth accounting, and the methodology-based modularization of original business with no offline process or unclear responsibilities through the IT project at the implementation system, so as to achieve the precision and transparency of business data, help EGING PV's information technology construction to step into a new level.

With the help of digital and intelligent system tools, EGING PV has better carried out the innovative concept in the technical reform of the workshop and the operational management of the Company, and has put in place the cost reduction and efficiency improvement. In the future, the Company will continue to deepen and refine the digital and intelligent reform, laying a solid foundation for greater and further development and becoming a new benchmarking enterprise of digitalization and intelligence.



#### Case: Won the title of Jiangsu Province intelligent manufacturing demonstration workshop

In December 2023, the Jiangsu Provincial Department of Industry and Information Technology released the proposed list of 2023 Jiangsu Province intelligent manufacturing demonstration workshops, and the "5GW high-efficiency crystalline silicon cell workshop" of Changzhou EGING PV Technology Co., LTD. was on the list.



EGING PV Intelligent Manufacturing Demonstration Workshop

EGING PV's "5GW high-efficiency crystalline silicon cell workshop" has a total investment of about RMB 1.8 billion and covers an area of 60,000 square meters, with the designed annual capacity of 5GW high-efficiency crystalline silicon cells. The project adopts MES+AGV intelligent management mode, which is an intelligent manufacturing workshop to achieve digitalization and automatic operation model. The workshop mainly produces high-efficiency crystalline silicon cells. In order to improve the production efficiency of cells and reduce the production costs, the workshop takes the lean layout, with intelligent collaboration as a goal, to open up information islands such as ERP, MES, WMS, automated production equipment and testing equipment. By establishing an information platform featuring unified data, unified platform and unified operation, it realizes the data connection in the whole value chain of the enterprise, empowering photovoltaic production.



Intelligent workshop function display (part):

Comprehensive application of intelligent equipment The workshop's intelligent equipment achieves the networking rate of more than 90%, and the MES system is applied to fully monitor the equipment with data acquisition capability and achieve real-time monitoring and online management of equipment, comprehensively enhancing the use efficiency of equipment.

Accurate delivery of production materials

The WMS system can help to realize the visual management of warehousing. The workshop uses AGV and other automation equipment and information technology to achieve the intelligent distribution and delivery of production materials. The AGV scheduling system can plan routes and distribute materials in time based on MES material needs. The use of information technology and bar code technology can help make the entire logistics process efficient, controllable and traceable.

Real-time control of production process

The production plan is made through the ERP system, and the corresponding production orders and monthly production plan are sent to the MES system. The MES system reasonably allocates the production orders according to the number of work orders and in consideration of the personnel, equipment capacity, the quantity of materials in stock, and others.

**Production** information tracking and tracing

The MES system establishes a unified coding system to ensure the uniqueness of the identification of each production link, and can accurately trace the source and destination of any link in the production process.

Intelligent control of energy consumption

The energy consumption data collected by MES in real time is saved and summarized to generate a statement for display, which is convenient for relevant management personnel to make the trend analysis and comparative analysis of energy consumption indicators.

Intelligent control of safety and environmental protection

The monitoring device is installed to collect temperature and humidity data and then upload the data to the environmental monitoring system.









The workshop is based on the large-size PERC crystal silicon cell process, and has gradually developed the advanced TOPCon technology. In addition, EGING PV has also won some honors such as the "5G Factory of the Ministry of Industry and Information Technology" and "Changzhou Intelligent Workshop". In the future, EGING PV will continue to expand the technological boundary and enhance the intelligent level of production so as to present higher-quality and more efficient PV products to the world!





# **CORPORATE COMPLIANCE OPERATIONS**









- CORPORATE GOVERNANCE SYSTEM
   BUSINESS ETHICS
- INTERNAL CONTROL CONSTRUCTION INFORMATION SECURITY
- INTERNAL AUDIT

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Sustainable Development Management Innovation-driven Development Creating Longterm Value Corporate Compliance Operations

Protecting Green Ecology Stick to the Bottom Line of Safety Adherence to People-oriented

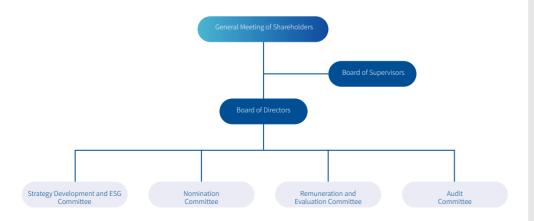
Appendix

## **Corporate Compliance Operations**

#### **Corporate Governance System**

EGING PV has continuously improved the corporate governance structure, strengthened and implemented the internal control system, standardizes operations, and further regulated behavior in accordance with the Company Law, the Guidelines on the Governance for Listed Companies, the Basic Norms for the Internal Control of Enterprises and other laws and regulations, as well as the latest requirements of the China Securities Regulatory Commission and the Shanghai Stock Exchange on corporate governance. The Company has strengthened communication with investors, fully safeguard the interests of investors and stakeholders, and keep improving corporate governance.

#### **Governance Structure**



#### **General Meeting of Shareholders**

The Company has strictly regulated the convening, holding, and voting procedures of the general meeting of shareholders in accordance with the Articles of Association and the Rules of Procedure for the General Meeting of Shareholders. The equal status of and full exercise of rights by all shareholders, especially the small and medium-sized shareholders, have been guaranteed in accordance with law, without any circumstances which are detrimental to the interests of small and medium-sized shareholders. During the Reporting Period, the general meetings held by the Company were legal and effective.

#### **Board of Directors**

The Company elected and appointed directors in strict accordance with the Company Law, the Articles of Association and other regulations, and the selection and appointment procedures were open, fair, and just. The Company's Board of Directors consists of 9 directors, with a reasonable professional structure and rich experience in the industry. All the directors have maintained an attitude of objectivity and rigor, diligence, seriousness and responsibility, and continuous learning in performing their duties, and put forward their own suggestions in a prudent and reasonable manner to ensure the efficient development of the Company. The Board of Directors has set up the Strategic Development and ESG, Audit, Nomination, Remuneration and Evaluation Committees, each of which has abode by the relevant rules of procedure and performed its duties conscientiously, playing an important role in regulating and assisting the Board of Directors in the decision-making process.

#### **Board of Supervisors**

The Company elected supervisors in strict accordance with the Company Law, the Articles of Association, and other relevant regulations. The Company's Board of Supervisors consists of three supervisors, and the number of members and composition of the Board of Supervisors follow laws and regulations. During the Reporting Period, the members of the Company's Board of Supervisors have diligently performed their duties, carried out compliance supervision over the Company's major issues, financial position, and performance of duties by directors and senior management, etc., and exercised other authorities stipulated in the Articles of Association and Rules of Procedure for the Board of Supervisors of the Company, so as to effectively safeguard the legitimate rights and interests of the Company and shareholders and to enhance governance and standardized operation.

During the Reporting Period, the Company held a total of 6 general meetings of shareholders, reviewed and approved 17 resolutions; the matters to be deliberated included providing guarantees for the controlling subsidiary companies, amending the Company's articles of association, etc. It held a total of 13 board meetings, reviewed and approved 56 resolutions, and the matters to be deliberated included issuing stocks, equity incentive plans, periodic reports, etc. to specific objects; in addition, it held 12 supervisory board meetings, reviewed and approved 30 resolutions, and the matters to be deliberated included appointing senior managers, revising some of the Company's governance systems, and conducting foreign exchange derivatives transactions, etc.

#### **Construction of Board of Directors**

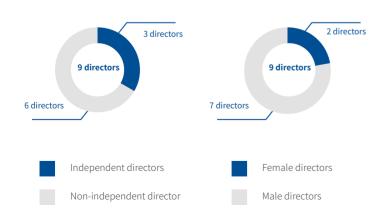
The Company gives full consideration to the age, gender, professional background, industry experience and other factors of board members to ensure the optimization and diversity of the composition of the board of directors. As of December 31, 2023, the Company has a total of 9 directors, including 3 independent directors and 6 non-independent directors. Among the board members, there are 2 female directors and 7 male directors. According to the age distribution, there are 2 directors aged 30-50 years, 6 directors aged 50-60 years, 1 director aged above 60 years; according to the distribution of education background, there are 3 directors with bachelor's degrees, 5 directors with master's degrees, and 1 director with a doctoral degree. The incumbent board members have professional abilities in industry, finance, law, management, etc., and have rich industry experiences.

#### **Investor relations**

The Company has formulated the Regulations on Investor Relations Management to standardize the relations management of investors (including potential investors), strengthen information communication between the Company and investors, and effectively protect the legitimate rights and interests of investors, especially public investors.

The Company has emphasized communication with investors and stakeholders, and fully protected the legitimate rights and interests of investors and stakeholders. During the Reporting Period, the Company has proactively interacted with investors, explained its own operation and future plans to investors, respected investors' ideas and suggestions, and maintained a good relationship with investors. The Company has attached great attention to the harmonious development with the investors, and has effectively fulfilled its social responsibilities and obligations.





### Compliance information disclosure

The Company has formulated internal system documents such as the Information Disclosure Management Policy, Responsibility System for Major Errors in Annual Report Information Disclosure, Regulations on Administration of Information Disclosure Suspension and Exemption Business, to define the responsibilities of information disclosure obligors and standardize information disclosure procedures and content. In accordance with the requirements of relevant laws and regulations, the Company ensures that the disclosed information is true, accurate, complete, concise, clear, and easy to understand, without false records, misleading statements or major omissions.



## **Internal Control Construction**

EGING PV has established a relatively sound internal control system and internal control system in accordance with the requirements of relevant laws and regulations such as the Company Law, Securities Law, Guidelines for Internal Control of Listed Companies, and Enterprise Internal Control Standards. In the process of establishing, improving and implementing the internal control system, the Company mainly considers the internal environment, risk assessment, control activities, information and communication and internal supervision.





**Environment control** 

It includes the overall plan for internal control construction, the specific plan and implementation status of establishing and improving the internal control system, the establishment and implementation of the internal control, audit and supervision department, etc.



Risk assessment



**Activity control** 



Information and communication



**Internal supervision** 

The Company has established a comprehensive risk management leadership group and working group to identify, analyze and evaluate the risks it faces based on changes in the Company's internal and external environments, and evaluate the overall major risks.

Activity control includes include incompatible job separation control, authorization approval control, accounting system control, property protection control, budget control, operational analysis control, performance evaluation control, major risk early warning and emergency response mechanisms, etc.

It includes external information disclosure and internal information disclosure, etc. The Company has formulated the EGING PV Information Disclosure Management System, and the information disclosure matters are under the unified leadership and management of the board of directors.

The Company's management conducts regular evaluation on the effectiveness of internal controls; the Company's audit committee performs annual assessments of the audit effectiveness and results, and discusses them with the audit committee and the audit department.

## **Internal Audit**

It mainly includes internal control audit, special audit, daily audit supervision and other audits, etc.

#### Internal control audit



Internal control audit is another important business scope of internal audit, which mainly includes the Company's risk assessment, process audit, compliance audit, etc. The main contents are as follows:



Organize, implement and complete the self-evaluation of annual internal control in accordance with the work requirements of the China Securities Regulatory Commission and the Shanghai Stock Exchange for listed companies:



Organize the revision of the internal control manual according to the requirements of internal audit work.



Complete the improvement of relevant matters, rectification responses, and audit and inspection of annual major matters according to the requirements of internal control inspection.

#### Special audit



Organize to implement and complete special audit works including procurement business management, annual operation management of Zhixi Power Station, fixed assets management, logistics and warehousing management, financial revenue and expenditure management, infrastructure project management, asset disposal management according to the annual internal audit work plan, communicate with the relevant departments and personnel regarding the problems and hidden risks discovered during the audit in a timely manner, and supplement and improve the relevant business processes and information in accordance with internal control requirements.

#### Daily audit supervision



Actively participate in the audit, supervision and management of the Company's daily business matters, and participate in the bid opening and price negotiation for projects such as the renovation of sewage facilities in the factory area, various environmental protection and greening in the factory area, disposal of waste materials, and fishing in the fish pond organized by the Safety and Environmental Protection Department, Procurement and Supply Department, etc.

#### Other audits



Conduct audits on some unexpected risk matters that arise in the Company's daily production and operations. For example, in 2023, we participated in and completed inspections and investigations on the management of spare parts provided free of charge to the workshops.



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Appendix

## **Business Ethics**

### Competition and fair dealing

The Company is committed to competing fairly and honestly, advocating winning competitive advantages with excellent quality and services, and abandoning unethical and illegal business practices. No one may gain an unfair competitive advantage through manipulation, concealment, abuse of information, distortion of facts, or any other illegal business practices.

The Company requires all employees to treat customers, suppliers, competitors and other employees with respect and fairness.

## Anti-corruption and upholding integrity

The Company actively carries out anti-corruption work and has formulated relevant regulations such as Company Integrity Initiative, Employee Integrity Handbook, and Employee Integrity Guarantee Commitment, to implement the responsible entities.

All employees should abide by national laws and regulations and the Company's rules and regulations, work with integrity, keep honesty and trustworthiness, abide by professional ethics and work disciplines, serve the Company wholeheartedly, and effectively safeguard the Company's legitimate rights and interests.

#### **Anti-fraud**

The Company's Internal Audit Department is a standing organization for anti-fraud work and is responsible for the Company's anti-fraud work, including assisting the management, departments and subsidiaries in self-assessment and independent assessment of anti-fraud work, reviewing and evaluating the establishment and implementation of the anti-fraud control mechanisms of the Company and its subsidiaries, accepting and registering fraud reports, organizing the investigation of fraud cases, issuing handling opinions, and reporting to the management, board of directors and board of supervisors, etc.

#### **Conflict of interests**

All employees must act in the best interest of the Company as a whole, and their behaviors must reflect the Company's commitment to integrity, ethics, and professionalism to its customers, suppliers, shareholders, and the public. Accordingly, all employees must ensure that any financial, commercial, or other behavior in which they are involved after work does not conflict with the interests of the Company.

All employees shall report any conduct that may cause a conflict with the Company's interests.

## Reporting channels and whistleblower protection

The Company has established an anti-fraud and reporting system and set up the reporting hotline, email and address to ensure that reporting and complaints become an important approach for enterprises to effectively grasp information.

#### **Reporting channel**

Reporting hotline



Reporting email



Reporting address



86-519-82588805 Egingjuba

Egingjubao@egingpv.com

Internal Control and Audit Department, 8/F, Administration Building, No. 18, Jinwu Road, Yaotang Town, Jintan District, Changzhou

# **Information Security**

# Construction of information security organization system

The leadership responsibility system is implemented for the confidentiality management of information data security and media. The leaders in charge of information are responsible for the confidentiality management of their respective information data security and media, and designate their respective information management departments and personnel to undertake the work. The Company's information management department is responsible for information data security and media confidentiality and provides corresponding technical supports. The information management departments of the headquarters and each subsidiary are responsible for their respective information data security and media confidentiality and provide corresponding technical supports. The information systems planned and constructed by the headquarters and each subsidiary must simultaneously plan and implement corresponding confidentiality measures and submit them to the headquarters' information management department for approval.

# Information security and daily maintenance of network equipment

Network management staffs shall check the working status of network and information security equipment such as routers, main switches, and firewalls through the network management software to ensure that the network equipment is operating normally and find problems in a timely manner to avoid abnormal interruptions in network services. When network management staffs discover abnormalities, they analyze the causes and handle them immediately. The handling process is recorded in the Network Equipment Daily Checklist.







# PROTECTING GREEN ECOLOGY









- ENVIRONMENTAL MANAGEMENT
- WATER RESOURCE MANAGEMENT
- \* RESPONDING TO CLIMATE CHANGE \* WASTE DISCHARGE MANAGEMENT
- ENERGY MANAGEMENT

# **Environmental** Management

### Construction of environmental management system

In accordance with the requirements of the Environmental Protection Law of the People's Republic of China, the Law of of Environmental Pollution by Solid Wastes, and other national system, adopted an environmental policy of "full participation,

### **Environmental protection action**

The Company highly recognizes that Chinese path to modernization is a modernization in which man and nature coexist harmoniously. Respecting nature. complying with nature, and protecting nature are the inherent requirements for building a modern socialist country in an all-round way, and also the value pursuit of EGING PV to insist on providing customers with environmentally friendly products and services. For many years, the Company has been practicing the concept of "lucid waters and lush mountains are invaluable assets", and has effectively protected the environment by signing Green Maintenance Contract with suppliers, greening the factory area, posting environmental protection propaganda signs, and providing energy-saving and emission-reduction training, to seek common development with partners in terms of harmonious coexistence between man and nature.

#### **Environmental testing and** assessment

The Company has carried out environmental protection monitoring and assessment on soil environment, water environment, three wastes (waste gas, waste water and waste residues), raw material Reach, product packaging materials, product life cycle, etc. in the important links such as procurement and production, and signed a Letter of Guarantee for Non-use and Banning of Hazardous Substances with suppliers, to strengthen the environmental protection in a chain manner from the upstream and downstream.



# **Responding to Climate Change**

EGING PV has always followed the concept of low carbon, environmental protection and green first. The Company's business activities should adhere to the criteria of" reducing the environmental load on the earth and improving the environmental carrying capacity of the earth", follow the national and international laws and regulations on environmental protection and green and low-carbon development, refuse to use products that do not meet global social responsibilities, and reduce the use of products with high environmental loads.

#### Renewable energy utilization

In September 2023, EGING PV participated in the green electricity market transactions, and signed a purchase contract on 1,200,000-kWh green electricity during the Reporting Period, marking that EGING PV is joining the road to decarbonization by purchasing offset credits, green electricity and other renewable energy and making positive contributions to China's dual carbon goals.

# Interpretation: What's "green electricity"?

Green Electricity Certificate (referred to as "Green Certificate") is an electronic certificate with a unique code identification issued to electricity generation enterprises for each megawatt hour of non-water renewable energy grid-connected electricity. As the sole certificate of green environmental rights and interests, it records the onshore wind farm or photovoltaic centralized power station from which the specific 1,000 kWh of grid-connected electricity is.









#### **Green Park**

In 2023, EGING PV Chuzhou production base was officially put into operation. The project covered a total land area of 1,000 mu and a total construction area of 250,000 square meters. The related supporting facilities such as 10-GW battery workshop, raw material warehouse, spare parts warehouse, comprehensive power station were built



Total land area of



Total construction area of

1,000 mu

250,000<sub>m²</sub>



Construction of related supporting facilities such as 10-GW battery workshop, raw material warehouse, spare parts warehouse, comprehensive power station

**10GW** 



A distributed photovoltaic power generation project is implemented for the building roof, with an installed capacity of approximately 15 MW. After completion, the annual power output of the first year is 19.125 million kWh, and the average power output in 25 years is 17.212 million kWh. In addition to reducing energy consumption for self-use, the project can achieve saving of 6.883 tons of standard coals, reduction in carbon dioxide emissions by 17.160 tons and sulfur dioxide emissions by 165 tons every year. The project's energy conservation and emission reduction effects are remarkable, assisting the Company in further achieving its green and low-carbon development goals.

### Zero carbon factory

In December 2023, Changzhou EGING PV Technology Co., Ltd. was awarded the first "Zero Carbon Factory" Certificate issued by the China Quality Certification Center (hereinafter referred to as "CQC"). In this appraisal, EGING PV complied with the relevant requirements of Specification for Evaluation of Zero Carbon Factory (T/CECA-G 0171 -2022), achieved 80% offset of greenhouse gases, and it was appraised as "Type I four-star zero carbon factory".



Awarded the first "Zero Carbon Factory" Certificate in the photovoltaic industry

#### Interpretation: What's a "zero carbon factory"?

The greenhouse gas emissions generated during production and service within a certain period of time (usually on an annual basis) is calculated by the carbon dioxide equivalent (CO2 e) within the boundaries of greenhouse gas emission accounting. On the basis of voluntary emission reduction as much as possible, the remaining emissions are removed by emission reduction projects outside the accounting boundary, and/or offset by a corresponding number of carbon credits.



#### Case: 2023 Carbon Neutrality and Green Development Conference

At the 2023 Carbon Neutrality and Green Development Conference, EGING PV was awarded the "Zero Carbon Factory" Certificate. In addition to "Zero Carbon Factory" certificate awarded this time, the Company is among the first batch of national-level "green factory" enterprises, and has been awarded "Greenhouse Gas Verification" Certificate, "Product Green Level Green Leading Three-Star" Certificate, "Green Building Material" Certificate and "Product Carbon Footprint" Certificate issued by CQC; in addition, it has established a complete and effective energy management plan. In the future, EGING PV will continue to focus on new technology, new energy, and new ecology to create a new low-carbon and green business type of the PV industry, assist in actively promoting the carbon peak and carbon neutrality, accelerate the creation of a green and low-carbon supply chain, and realize the high-quality, green and low-carbon development of the industry.



## **Product carbon footprint**

In July 2023, TÜV Rheinland Greater China, an international independent third-party testing, inspection and certification agency, issued product carbon footprint certificates for six crystalline silicon photovoltaic module products of EGING PV. The TÜV Rheinland project team is composed of experts in multiple fields such as energy management, life cycle analysis, material application, and supply chain management, and the team has performed carbon footprint inspection on the EGING PV's crystalline silicon photovoltaic modules in combination with the domestic and international supply chain trends for various stages of the product life cycle- "from cradle to gate".



"Product carbon footprint" inspection certificate



## Interpretation: What is "product carbon footprint"?

Product carbon footprint refers to the total carbon emissions of a product or service throughout its life cycle. In each stage of the product life cycle, the use of a large amount of energy and the generation of pollutants and the emission of greenhouse gases are involved. Therefore, the Company should not only focus on the most direct and obvious energy consumption and emission links, but also examine the impact on the environment at each stage from a perspective of product full life cycle, and seize the opportunities for low-carbon emission reduction in product design, production and supply, etc.

#### **Product Impact and Life Cycle**

Scrapped PV panels generated at the end of the life of photovoltaic products contain heavy metals such as lead and tin. If they are not disposed of properly, serious environmental pollution problems may be produced. Other materials such as copper, silver, silicon can be reused in the production of photovoltaic products, thereby saving rare resources and promoting the economic value circulation. The Company has signed an agreement with the European PV Cycle Agency. Photovoltaic modules at the end of the product life will be professionally handled by hundreds of branches in Europe to provide customers with comprehensive collection and recycling services. The agreement covers countries including Italy, France, Germany, and the United Kingdom, Poland and Spain, etc. In the future, the Company will continue to expand the service scope to achieve resource recycling development.

# **Energy Management**

#### **Energy management policy**

Law-abiding and innovation, energy saving and consumption reduction, clean production, continuous improvement

#### Connotation

Consciously abide by energy-saving laws, regulations and standard requirements, scientifically manage the work of various departments by implementing the energy management system within the Company and strictly following the requirements of the energy management system procedural documents; continuously adopt new processes, new technologies, and new equipment to improve or replace high-energy-consuming process equipment, continually improve energy management, achieve energy conservation and consumption reduction, comprehensive utilization of resources, reduce costs, increase benefits, and jointly create green and low-carbon EGING PV.

### Construction of energy management system

In order to establish and continuously improve the Company's energy management system, reduce energy consumption, improve energy utilization efficiency, and achieve high-efficiency and low-consumption production, EGING PV has compiled the Energy Management Manual as a programmatic document for the Company's energy management in accordance with ISO50001:2018 Energy Management System - Requirements and Usage Guideline and in combination with the Company's actual situations.

The Manual describes the Company's requirements for the energy management system and is applicable to energy management activities involving production, products and unit management-related processes. It sets forth the Company's energy policy and goals, and is a regulatory document for the Company to fully implement the energy management system requirements, a code of conduct that must be followed for implementing the energy management, and an important document for the internal audit and third-party audit of the energy management system.

#### **Energy management actions**

The Company has formulated complete energy management work procedures and carried out energy management system certification, zero-carbon factory planning, energy review, etc., and has taken the means such as rooftop photovoltaic projects and green electricity green certificate procurement, to actively promote the new technologies, new processes and new materials, constantly optimize the energy consumption structure, reduce energy consumption levels, and improve energy utilization efficiency and economic benefits.



## **Water Resources Management**

In recent years, EGING PV has actively implemented various regulations on water resources management issued by Jiangsu Provincial Department of Water Resources, and listed the water conservation as a key issue with the vigorous promotion and guidance and support at the provincial, municipal and district levels; in addition, it strengthens the management, takes water-saving measures and implements water-saving transformation to reduce the consumption of water resources.



#### **Case: Sewage station project**

EGING PV invested RMB 2.8 million to expand the sewage station, and simultaneously built a reclaimed water system project. The treated reclaimed water was reused until there are calcium carbonate bubbles inside the sewage station, saving the usage amount of new water.



#### Case: Concentrated water recycling project

EGING PV built a recycling water tank to recycle the concentrated water generated in the pure water production process, which would be used for ground washing and greening irrigation in the factory area, saving the water resources. At the same time, the Company invested RMB 60,000 to build a rainwater collection tank with a volume of 100 cubic meters, and the collected rainwater would be used for greening irrigation.



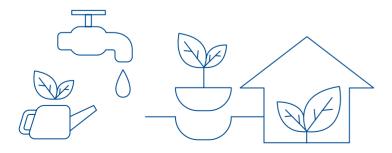
Concentrated water collection tank



Mobile water truck for greening and sprinkler irrigation

In terms of daily management, EGING PV has formulated a number of management rules and regulations on energy and water conservation, which clearly stipulate the management, maintenance and inspection of water supply facilities, equipment and instruments. In addition, it has carried out the water-saving publicity and mobilization and training meetings for many times to publicize water-saving knowledge and water-saving tips to employees, conducted water-saving questionnaires to know the employees' awareness of water-saving, and continuously improved the effectiveness of water-saving work.







In September 2023, the Jiangsu Provincial Department of Water Resources announced the list of provincial water-saving carriers for 2022, Among them, there are 15 award-winning enterprises in Changzhou, including Changzhou EGING PV Technology Co., Ltd. awarded with the title of "Water-saving Enterprise in Jiangsu Province".



#### Interpretation: What is a watersaving carrier?

- Mater-saving carriers are composed of water-saving enterprises, water-saving units and water-saving residential areas, etc.
- The creation of water-saving carriers is an important part of building a water-saving society. The government encourages enterprises, units, residential communities and individuals to actively participate in the creation of water-saving carriers by issuing policies such as measures on administration of water conservation, water conservation incentive measures.
- The construction of water-saving carriers is carried out vigorously by taking government agencies, enterprises, communities, schools, etc. as basic units, which is of great significance for implementing the water-saving priority policy and promoting green development and is an important part for implementing the national water-saving actions.

This award of "Water Saving Enterprise in Jiangsu Province" is a new starting point for EGING PV in energy and water conservation. EGING PV will take this opportunity to continue to uphold the concept of "saving water and scientific use of water" and continuously optimize the management of water conservation work; it will continue to search for the potential for water saving, formulate feasible water-saving measures and plans, firmly follow the path of green and low-carbon development, and achieve a win-win situation for corporate economic efficiency and social benefits.

## Waste Discharge Management

The main pollutants in the waste gases emitted from the Company include low-concentration particulate matter, tin, non-methane total hydrocarbons, volatile organic compounds, ammonia, hydrogen chloride, chlorine, fluoride, and alkali mist. The main contaminants in the waste water include pH, chemical oxygen demand, suspended solids, ammonia nitrogen, total phosphorus, total nitrogen, fluoride, and anionic surfactant. In May and November 2023, Zhongke ASM (Jiangsu) Inspection and Testing Co., Ltd. was entrusted to detect the exhaust gas, waste water, and noise, and the test data were all in compliance with emission and discharge standards. In addition, VOCS online detection equipment is provided to detect the Company's waste gas, and the east and west plant areas are equipped with the facilities for online detection of flow, ammonia nitrogen and COD at the sewage outlet, all of which are connected to the monitoring platform of the Jiangsu Provincial Department of Ecology and Environment. The total annual emissions in 2023 include 2.5 tons of VOCS, 13.5 tons of ammonia nitrogen, and 31.37 tons of COD.

All general industrial solid wastes have been comprehensively utilized, and hazardous wastes have been disposed by an entrusted qualified organization. The transfer and disposal of general industrial solid wastes (sludge) and hazardous wastes were operated under the "one file for one enterprise" management system for pollution sources in Jiangsu Province. Among them, general industrial solid wastes (sludge) were disposed by the entrusted companies including Changzhou Ranton Environmental Protection Technology Co., Ltd., Yangzhou Chenxuan Environmental Protection Co., Ltd., and Zhenjiang Yongsheng Environmental Protection Technology Co., Ltd.; the garbage removal contracting (construction wastes, scrap materials) was completed by the entrusted company- Changzhou Bisha Environmental Protection Technology Co., Ltd., and the domestic waste was disposed by the entrusted company- Changzhou Jintan Jinxing Sanitation Service Co., Ltd. Hazardous wastes have been entrusted to qualified organizations for disposal.

For waste acids and waste alkali, a hazardous waste transfer contract has been signed with Xuyi Green Technology Co., Ltd.; for waste mineral oil, a hazardous waste transfer contract has been signed with Changzhou Jintan Jindong Environmental Protection Engineering Co., Ltd. and Changzhou Finas Energy Technology Co., Ltd.; for waste drums, a hazardous waste transfer contract has been signed with Jiangsu Kangspel Renewable Resources Co., Ltd. and Changzhou Puda Environmental Protection Cleaning Co., Ltd.; for the waste flux, waste drums, waste tin foil, waste activated carbon fiber filter cartridges, waste resin, waste rags, and operation waste liquid from online monitoring equipment, etc., a hazardous waste transfer contract has been signed with Yangzhou Shoutuo Environmental Technology Co., Ltd. All of these companies have the qualifications for disposal of hazardous wastes.









# STICK TO THE BOTTOM LINE OF SAFETY









- SAFETY PRODUCTION MANAGEMENT
- DOUBLE PREVENTION MECHANISM
- OCCUPATIONAL HEALTH PROTECTION
- EMERGENCY RESPONSE

# Safety Production Management

# Construction of safety production organization system

In order to improve the Company's production safety management level and enhance its ability to prevent and respond to accidents, EGING PV has set up a production safety committee as the Company's leading organization for production safety in accordance with the requirements of production safety regulations. The Safety and Environmental Protection Department is the Company's production safety management organization and is responsible for the Company's daily production safety management. The Human Resources Department is the Company's occupational health management agency and is responsible for the management of the Company's daily occupational health management. The general manager (president) is the first responsible person of the Company's production safety and occupational health work.

#### Improved safety production system

In accordance with the changes to the laws and regulations such as Work Safety Law of the People's Republic of China, Safety Regulations of Jiangsu Province, Administrative Measures for the Withdrawal and Use of Enterprise Safety Production Expenses (C. Z. No. 136 (2022)), and Standards for the Determination of Major Accident Hazards for Industrial and Trade Enterprises (No. 10, Order of the Ministry of Emergency Management of the People's Republic of China), the Company revised the Compilation of Rules and Regulations on Safety Production, with a total of 45 administrative regulations.

### Safety production responsibility system

In 2023, the Company revised the safety production responsibility system for all employees, involving 38 departments and 53 positions in various departments and subordinate departments of the Company. The Company's president signed the pledge for safety production responsibility with the heads of each center and department, and required them to paste the handwritten pledge for safety production responsibility in their workplaces to remind themselves of their safety production responsibilities at all times.





Departments and subordinate departments of the Company

Posi

38

53



# Safety production training for employees

According to the 2023 Safety Production Education and Training Plan, the Company organized 7 sessions of annual safety education and training for safety production management personnel, company-level emergency rescue team members, and all workshop staff, and completed the 2023 annual safety training and education assessment for all employees in December 2023. In 2023, the Company organized 174 sessions of third-level safety education for newly recruited employees and 78 sessions of safety education and training for external construction parties entering the factory.



Sessions of third-level safety education for newly recruited employees

**174** 



Sessions of safety education and training for external construction parties entering the factory

**78** 

# Series of activities for safety production management

November 9, 2023 is the 32nd National Fire Protection Day. EGING PV successfully held the launch meeting of the 2023 EGING PV "Fire Protection Awareness Month Activities" with the theme of "Prevention First, Life First", to cultivate the fire safety culture and create a fire protection propaganda atmosphere.





In order to create a fire safety cultural atmosphere, the Safety and Environmental Protection Department led to formulate various promotional posters, banners, display boards, etc. for the fire safety month activities, posted the fire safety posters and other publicity signs to jointly create a new atmosphere for EGING PV' fire safety culture. At the same time, various activities have been held, such as fire knowledge quizzes, fire evacuation drills and operation demonstrations of fire equipment, and fire emergency competitions.

## Safety training

For enterprises, rules and regulations for safety production are very important and absolutely "red lines". Therefore, EGING PV specially invited Mr. Lu Yuhao, a safety production expert from Chuzhou City, to explain the Work Safety Law publicly.



Through the fire protection month activities, EGING PV continues to improve the Company's fire safety management system, improve the comprehensive quality of the emergency management and rescue team, strengthen the fire safety awareness of all employees, and ensure that employees can use fire extinguishers and other facilities, master the fire extinguishing, self-rescue, mutual rescue, and escape skills, laying a solid foundation for the Company's safe production.

## Firefighting skills competition

In order to further improve the emergency response skills of all employees and implement the fire protection work policy of "prevention first, combining prevention and firefighting", EGING PV held the first fire protection skills competition in November 2023. During the competition, all participants competed in skills and physical fitness, checked their disadvantages and made up for their shortcomings, exhibiting a beautiful scene in the competition. The team of female employees sent by the Quality Department performed well and received warm applause for their spirit of not being inferior to men. Through the competition activities, the Company further improved the fire protection professional skills and practical levels.





## **Double Prevention Mechanism**

# Risk classification control, investigation and management of hidden dangers

According to the Regulations on Safety Production Risk Reporting for Industrial Enterprises in Jiangsu Province (Provincial Government Order No. 140), the Company organized safety risk identification and evaluation work in 2023, and established a risk management and control list (65 items), including 33 major safety risks, 27 general safety risks and 5 minor safety risks. The management and control measures are formulated from such aspects as engineering technology, on-site management, education and training, personal protection, emergency response, etc., and the responsible departments and responsible persons have been clarified. A total of 33 major safety risks have been reported through Government Affairs Platform of Jiangsu Province.

The Company has completed a special assessment report on major hazard sources of hazardous chemicals (special gas room 1, solar cell workshop), and has completed the filing work with Jintan District Emergency Management Bureau. The relevant data for safety monitoring of major hazard sources (20 combustible gas detectors, and 25 video surveillance locations) have been connected to Safety Production Risk Monitoring Platform of Changzhou Industrial and Mining Enterprises.

Limited space management of the Company's sewage station. In 2023, the Company implemented the construction of a limited-space "locked cabinet" demonstration site, and was awarded the title of "Model Enterprise" from Changzhou Jintan District Emergency Management Bureau.

According to the 2023 Work Plan for Accident Hazard Investigation and Management, the Company organized the main persons in charge to participate in a comprehensive inspection of production safety every quarter, to study, analyze and solve existing problems in production safety; organized them to participate in a comprehensive inspection of production safety every month, and actively proposed suggestions to improve the safety production management. In accordance with the Standards for Determining Major Accident Hazards in Industrial and Trade Enterprises (Order of the Ministry of Emergency Management of the People's Republic of China (No. 10)) and referring to Articles 3, 7, 13, and 14, the inspection was conducted to determine no major accident hazards. The Department of Safety and Environmental Protection supervised the implementation of safety production rectification measures in various departments, and as of December, a total of 214 potential accident hazards have been investigated and handled.



Risk management and

 $\mathbf{65}$  item

items

33

Major safety risks

iten



General safety

27

ems



Minor safety risks

items

Major sa

Major safety risks reported through Government Affairs Platform of Jiangsu Province

**3** it

items



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Appendix

# Occupational Health Protection

# Construction of occupational health management system

The Company has passed the ISO 45001 occupational health and safety management system certification in 2010, established an "occupational health leadership group" led by the president. It has clarified that the Company's Human Resources Department and Safety and Environmental Protection Department are the Company's occupational health management agencies, and their job responsibilities are defined. An occupational health management system and operating procedures have been established, and relevant occupational health management measures have been implemented through annual occupational disease prevention and control plans and implementation plan. Meanwhile, the Company's occupational health files and workers' health monitoring files are established and improved gradually.

## Management of occupational hazard factors

Every year, the Company entrusts qualified occupational health technical service agencies to conduct regular testing of occupational disease hazard factors in the workplace, and the test data are all qualified; alarm devices were provided in the toxic and harmful workplaces where acute occupational injuries may occur, and on-site first aid supplies, flushing equipment, emergency evacuation channels and necessary hazard relief areas were equipped and established. In December 2023. regular testing of occupational disease hazard factors in occupational disease hazard positions was organized and completed. This round of testing included 13 dust positions, 78 chemical factor positions, 1 noise position, and 2 power frequency electric field positions. The test results were all in compliance with the Occupational exposure limits for hazardous agents in the workplace. For Component 2.5 GW and 2 GW projects, the risk classification level of the occupational disease hazard is serious. According to the Regulations on Administration of Occupational Health in Workplace, an evaluation of the current status of occupational disease hazards was carried out in December 2023. In December, on-the-job physical examinations for employees exposed to occupational hazards were carried out by collaborating with the Human Resources Department. During the Reporting Period, no occupational disease incidents occurred within the Company.



The Company has built corresponding occupational disease protection facilities in workplaces where dust, noise, and chemical factors are present, to ensure the effectiveness of the facilities. The production workshops are equipped with a fresh air system and air conditioning for temperature control to ensure that employees are in a safe and healthy working environment.

Each production department is equipped with the personal protective equipment according to the characteristics of the positions in the workshops, implements the planned procurements and distributes them to the employees according to the requirements. Employees were supervised and guided to wear and use labor protective equipment correctly. The items such as protective clothing, protective gloves, and gas masks installed at designated locations should be checked on a monthly basis to ensure that they are in a normal state.

In summer, outdoor patrol personnel who may be exposed to high temperatures would be paid RMB 300 per month according to the relevant regulations, and summer cooling products such as Huoxiang Zhengqi water, cooling oil, Rendan minipills, and mosquito repellent would be distributed.







Dust positions

Chemical factor positions

Noise position

13

**78** 

1

### Occupational health surveillance

The Company organizes employees who are exposed to occupational disease hazardous agents to conduct occupational health examinations before, during and after work. The results of the examination are notified to the employees and signed by the employees for confirmation. Re-examination will be arranged for workers who need re-examination; workers with occupational contraindications will be transferred from their original jobs. In December 2023, the Company carried out the 2023 annual on-the-job physical examinations for employees exposed to hazardous agents of occupational disease.

## **Emergency Response**

#### **Emergency management**

In order to strengthen the Company's management of major risks and emergencies, minimize costs, reduce losses, and maintain the Company's normal business order, EGING PV has established a sound early warning and emergency response mechanism in accordance with the relevant laws, regulations and normative documents such as Company Law of the People's Republic of China, Securities Law of the People's Republic of China, Basic Norms for the Internal Control of Enterprises, and Articles of Association of EGING PV Technology Co., Ltd.

The Company handles the major risks and emergencies based on the principle of "prevention first, combining prevention with emergency response", implements unified leadership, unified organization, classified management, hierarchical responsibility, rapid response, and coordinated response to achieve feasible and proactive response.

### **Emergency drills**

The Company organizes to set up an emergency rescue organization and establish a company-level emergency rescue team. Each business department establishes a departmental emergency rescue team; emergency equipment is equipped and emergency supplies are reserved. According to the drill plan, special emergency rescue drills for fire and explosion accidents, special emergency rescue drills for major sources of hazardous chemicals, special emergency rescue drills for limited spaces, special emergency rescue drills for special equipment, and comprehensive emergency drills were carried out in 2023.



#### Case: Emergency drill for hazardous chemicals leak

In order to further improve and strengthen the emergency rescue capabilities and level of comprehensive response to hazardous chemical leakage accidents, and effectively protect the life and property safety of the Company's employees, the Company organized a chemical leakage emergency drill in September 2023.

#### Gather

Each emergency drill team arrived at the designated location to gather, and the Company's leaders publicized and implemented the matters needing attention to improve the safety and emergency awareness of the participants.



#### Practical drill

For the purposes of drills, when the hydrochloric acid storage tank in the chemical supply room 106 was filled with the tank truck on the site, the interface leaked and there was a risk of spread. Based on the dangerous situations, it was determined to be a chemical leakage accident and a three-level emergency plan was initiated. The emergency evacuation team immediately organized the evacuation of personnel.



#### Emergency response

The emergency rescue team implemented emergency measures for employees who accidentally came into contact with chemicals at the filling site. They flushed the contact parts with clean water for 15 minutes (it has been shortened appropriately during the drill). After flushing with clean water, they simulated to use DIPHOTERINE for secondary treatment.



#### Rescue the wounded

After the rescue vehicle arrived at the scene, the injured persons were carried to the vehicle on stretchers by the rescue team.



#### On-site emergency treatme

The sources of chemical leaks on the site were sealed and dealt with by well-dressed rescue team members.



#### Evacuation assembly

According to the drill plan, the evacuated personnel gathered in the small plaza on the east side of the small monomer.



#### On-site drill summary

This drill fully demonstrated that the Company's emergency supplies were sufficient, its emergency capabilities were up to the standard, and emergency procedures were complete. In the later stage, the Company should focus on enhancing the risk prevention awareness and self-rescue and mutual rescue capabilities of all employees to ensure long-term safety in the production.







# ADHERENCE TO PEOPLE-ORIENTED



HUMAN RESOURCE MANAGEMENT

PUBLIC CHARITY

EMPLOYEE TRAINING AND CAREER DEVELOPMENT









# Protection of Employee Rights and Interests

#### **Labor management**

The Company prohibits the use of child labors and protects underage workers. No discriminatory behavior is allowed against any employee and the legitimate rights and interests of employees are protected. The Company controls the overtime work, reasonably arrange the work and rest time. It has developed an incentive salary and remuneration system to ensure that employees receive reasonable wages and benefits. From the time when an employee is recruited to the time when he/she leaves the Company, no one in any department may engage in any form of discrimination against any employee. During the Reporting Period, the Company has updated and released the Measures on Attendance Management to strengthen the management of working hours and ensure that working hours comply with legal requirements.

The Company expressly prohibits the use of prison labors and any other form of forced labors and will carry out business with any factory or supplier that uses forced labors (including prison labor, indentured labor, bonded labor or other forms of forced labor) or that violates child labor laws. The Company has signed labor contracts with employees in accordance with labor laws and regulations, which clearly clarifies the employment conditions, without any restrictive or unreasonable conditions when recruiting workers. During the Reporting Period, all regular employees of the Company signed labor contracts, and the social insurance payment rate for employees under labor contracts was 100% (except for re-employed retired employees who were not required to pay social insurance).

### Safety, health and labor protection

Environmental protection, health and safety are the Company's consistent development concepts. The Company continues to optimize and improve to minimize environmental, health and safety risks in production and operations. The Company is committed to minimizing and, where feasible, eliminating the use of any substances or materials that may cause environmental damage, reducing the generation of wastes through some technical means, and adopting safe technical operating procedures to minimize the impact on the environment. All company's employees strive to conserve resources and reduce waste generation and emissions through recycling and other energy-saving measures. The All Company's employees have a major responsibility to protect the environment, and employees are responsible for promptly reporting any known or suspected violations of environmental laws or any incidents that may result in the release of harmful substances.

The Company has comprehensively promoted the construction of safety management system, actively carried out the safety production training and publicity work, created a good safety culture atmosphere, enhanced employees' safety production awareness and capabilities, and comprehensively improved the Company's safety culture construction. The Company is committed to providing a safe and healthy working environment for every employee, trying to achieve zero work-related injury accidents, and achieving the goal of being the safest factory in the new energy industry. The Company requires employees to proactively raise existing safety issues and take relevant measures to resolve potential safety hazards. Employees are required to work safely and prohibit the use of illegal drugs or other controlled substances in the workplace. In addition, employees should proactively report unsafe equipment and other hidden dangers to their supervisors and other superiors to create a safe production environment.



# Employee Remuneration Package

EGING PV has been dedicated to provide a suitable and safe working environment and competitive welfare benefits for all employees to make them feel safe and have reasonable remuneration, equal opportunities, and necessary support.

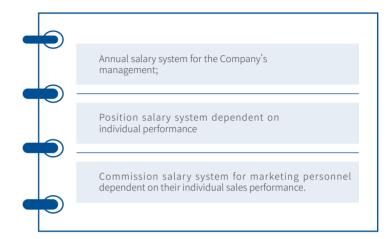
The Company has designed a remuneration distribution framework based on employee positions, abilities and performance, and market levels to offer employees competitive remunerations. A comprehensive remuneration distribution system that includes a system in which an employee's salary is primarily decided by his position, performance and grade, and a variety of remuneration distribution system is implemented for all employees.



#### **Remuneration System**

EGING PV has prepared its remuneration budget based on the Company's development and industrial average salary, and allocated salary based on the Company's budget, employees' contributions, abilities, attitudes and responsibilities. The Company has implemented a comprehensive remuneration system which includes a system in which an employee's salary is primarily decided by his position, performance and grade, and a variety of remuneration distribution system. The employees' monthly, quarterly and annual performance wages are determined by their job evaluation and performance appraisal results. At the same time, it sets up positions according to the Company's needs and employs people in accordance with the positions based on the job description and implements a salary system consisting of position salary and additional performance bonuses and allowances.

The Company has designed various moderately differentiated remuneration system based on the difference in job responsibilities, technologies, skills, and contributions:



#### **Performance Incentives**

The Company has formulated a Performance Management Plan to clarify the details and requirements for employee performance management. The Company's employee performance management includes the determination and decomposition of performance indicators, planning of employee performance and its implementation, evaluation and audit of employee performance, and the application of performance results, etc.

The Company assigns its business objectives to every departments and employees. In order to reflect the employees' performance and achievements at work, EGING PV has established different performance appraisal plans according to employees' ranks and categories. The appraisal is performance-oriented and will affect the employees' monthly and annual performance salary and bonus.

The Company pays attention to economic incentives as well as non-economic incentives. The Company not only offers its employees statutory benefits in accordance with national and local governmental regulations, but also offers diversified corporate benefits that are adaptable to the Company's development.

## **Human Resource Management**

#### **Recruitment and employment**

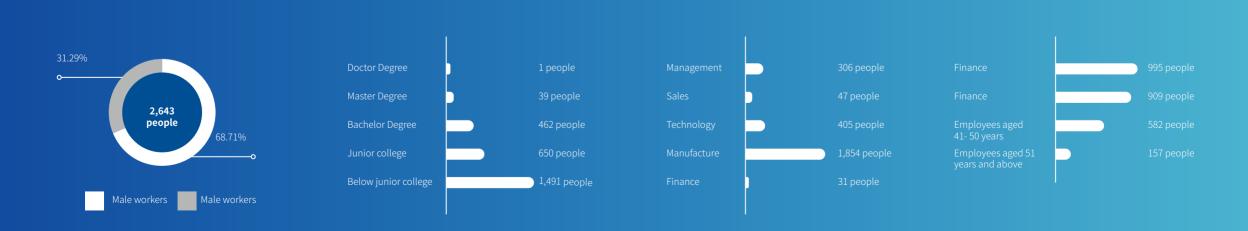
EGING PV adheres to the principle of "being fair, just and open". The Company treats each job seeker equally and selects the best qualified.

The Company adopts different recruitment channels to build the Company's talent pool. The active school-enterprise cooperation and campus recruitment with universities and vocational schools has enabled the Company to accumulate abundant talent resources in terms of talent quantity, knowledge level and professions type and has provides a solid foundation for the Company's healthy development in the long term. The Company values its existing talents as well while introducing external talents into the Company. In case of any position vacancies, it is preferred to have internal personnel competes for the position first. The Company thinks highly of the development of its employees.

### Employee equality and protection of female employees

EGING PV will not discriminate or treat its employees unfairly due to their age, disability, ethnicity, gender, marital status, nationality, political affiliation, race, religion, sexual orientation, or whether they belong to any Labor Union, etc. The Company maintains that remuneration shall be equal between men and women, that there shall be equal pay for equal work, and that all employees of the same rank shall be treated equally in terms of benefits, food and accommodation, etc. At the same time, female job-seekers are not required to take a pregnancy test during their pre-employment physical examination (except when it is required by applicable laws and regulations or it is in prudent consideration of workplace safety). Job seekers will not be discriminated because of their results of the physical examination. Interviewers who are relatives to the job-seeker should not participate in the interview with the job-seeker according to the principle of avoidance. During the reported period, the Company has not had any discrimination incidents that were contrary to the above statements.

The Company prohibits sexual harassment in the workplace or office, including but not limited to any words, gestures or physical contact that relates to sexual coercion, threats, insults or exploitation. The Company has set up an opinion mailbox and will have the administrative department investigate into the complaint if there is any. If a complaint is verified, the Company will make different punishment depending on the scale of the problem. In minor cases, the discriminator or the harasser will be educated by the Company; while in serious cases, the discriminator or the harasser will be claimed for criminal liability in accordance with the law.



## **Communication with Employees**

**Diversified platform for communication with employees**: the Company has established smooth channels of communication with employees based on the principle of "full participation" to listen to employees and adopt their opinions through Labor Unions, regular communication and interviews with employees and employee satisfaction surveys, etc.



All employees are eligible to join the Labor Union, and their willingness to join or not is fully respected by the Company. Employees can put forward issues that are closely related to their vital interests through the Labor Union.



The Company conducts symposiums with employees periodically to collect their questions and feedback so as to meet their reasonable needs.



The Company carries out special employee satisfaction surveys from the following eight aspects: job satisfaction, life satisfaction, teamwork, performance management, department management, corporate management, remuneration, and employee development. The Company conducts statistical analysis of the results of the surveys, organizes special discussions, develops projects and measures for improvement, and requires responsible units to implement the improvements.



In 2023, the Company held a total of 4 employee symposiums, with 37 participants.



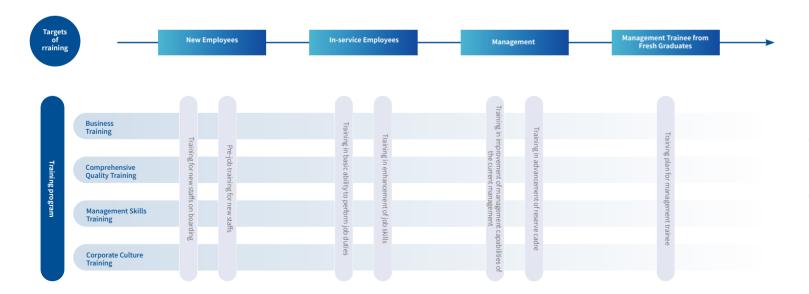
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## **Employee Training and Career Development**

### **Employee training**

The Company advocates the culture of "everyone learning together". It endeavors to strengthen employees' professional and technical capabilities through training and learning to improve the Company's overall performance. It has established a Management Policy of Employee Training, according to which the Human Resources Department shall be responsible for the organization of employees' training. The training courses are divided into general courses and professional courses according to their contents. The general courses aim at improving employees' comprehensive abilities and qualities while the professional courses lays emphasis on improving employees' special or professional abilities. The courses range from middle and senior management, grassroots management, and front-line employees. Different training courses and contents are applied for different groups of people to ensure that what the employees learned from the courses is appropriate, useful and practically applicable, to achieve the overall improvement of team effectiveness.

In 2023, a total of 45 company training sessions were held with 1,131 participants. Each training session was photographed and uploaded on the Company's OA, together with the descriptions of the training. Among the 1,131 participants, 982 people participated in the training satisfaction survey, according to which more than 98% are satisfied with the training.



#### **Employee advancement**

EGING PV has been acting on the idea that the rank shall be determined by the position, the salary shall be determined by the rank and the people shall be competent at the position and has established a scientific, reasonable, and dynamically implemented remuneration management system. The Company is equipped with a complete campus and social recruitment system, employee appraisal and advancement mechanisms. Meanwhile, a salary strategy oriented toward positions, personal abilities, and performance evaluations is made to ensure that employees receive timely and effective feedback and incentives. During the reported period, 52 employees got career promotions.

The Company has been open, fail and just in the management of employee advancement, and has established a scientific advancement management process to ensure that outstanding talents will achieve growth in the Company.

#### Human Resource Development

In terms of human resource development, EGING PV considers talents as the driving force of the Company's development. The Company attaches great importance to the introduction of talents and therefore has established good industry-university-research cooperation relationships with Shanghai Jiao Tong University, Jiangsu University, Changzhou University, and Hohai University. The advantages of the university encourage the Company's innovation. Meanwhile, the Company pays attention to the development of its talents and has developed a fairly comprehensive training plan for new employees.

# **Employee Care**

EGING PV makes every effort to make its employees feel happier from different perspective, including wearing, eating, housing, and transportation:



#### Staff canteen

There are employee canteens in both east and west factories of EGING PV, covering a total area of more than 5,000 square meters, which can cater for more than 2,000 people at the same time. The Company's canteens provide breakfast, lunch, dinner, midnight snacks and even food service during public holiday for staffs.



#### Staff accommodation

The Company provides a total of more than 200 dormitories, each with its own private bathroom for its staffs, which can provide accommodation for more than 1,000 employees. There are laundry rooms and pantries in the dormitory's public areas, and the dormitories are surrounded by convenience supermarkets and snack bars. There are also cleaning staffs who will clean the dormitory rooms and public areas regularly.



#### Staff transportation

The Company is equipped with various models of vehicles such as commercial vehicles and Coasters to meet the needs of employees for their daily business trips and business receptions. There are shared mopeds, tram charging piles, and sufficient parking area for cars and battery vehicles.



#### Staff suits

The Company provides spring and autumn suits, summer POLO shirts, and winter business jackets for its administrative staff, and provides workwear to wear in summer, winter and spring as well as electrostatic dust-proof clothing for its production front-liner.



#### Other benefits

The Company's administrative building has a gym and a party building activity room. There are pantries equipped with water purifiers, microwave and other electrical appliances as needed to make it most convenient for the employees' life. In addition, there are also buffet areas, dining rooms, guest rooms, gyms and various complete facilities.



## Caring-for-the-employee Program

Employees are the driving source of corporate development, so caring for the employees is essential to the building of a harmonious enterprise. The caring-for-the-employees program is launched for the joint creation of a harmonious enterprise, to let the employees share the fruits of corporate development, express the Company's care for its employees, enhance the Company's cohesiveness, arouse the employees' passion for work, improve their happiness. The program mainly consists of five aspects:



# Caring for the employees' physical and mental heath

The Company provides employee health checkups on a regular basis, and keeps employee health archives. It has a system for visiting hospitalized employees, and an annual leave system; it purchases life accident insurance for employees exposed to personal accidents; and it continues to improve the working and living conditions for the employees.



## Caring for the employees' spiritual demands

The Company ensures smooth employee communication channels and holds birthday parties for the employees. When an employee or his/her immediate dependents get married or pass away, the department head will go there to send congratulations/condolence. The Company also visits front-line employees sticking to their positions during major holidays, or in scorching summers and freezing winters.



## Caring for the employees' recreation and sports

The Company has recreation and sports groups covering basketball, ping-pong, badminton, song and dance, and speech, which systematically carry out various activities every year. It organizes monthly recreation and sports activities, and all-employees competitions twice every year, with the participation of front-line employees whenever possible. It holds corporate culture-themed speech contests or paper/case solicitations once every year. It continues to increase investment in recreation and sports facilities to enrich the employees' spare time and facilitate the construction of harmonious workers' families. It organizes parent-child activities regularly and invites employees' children to visit the Company.



## Caring for the employees' growth

Political care; job training; the Company intensifies employee training and encourages the employees to improve themselves; it carries out social activities with all sectors of the society to broaden the employees' social circle and vision.



## Caring for the employees' families

The Company increases employee benefits; provides aid to employees in need; and offers lump-sum student grants to employees' children who are admitted to Project 211 and 985 universities.

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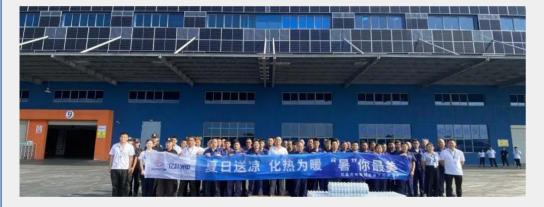
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Case: 2023 Summer Condolence Activities for "Love Employees · Sending Coolness"

In order to effectively safeguard the safety and health rights of workers under high temperatures and promote the construction of EGING culture, EGING PV Labor Union together with the Administrative Office and Department of Safety and Environmental Protection visited the representatives of workers working in high temperatures in August 2023. Chen Jiangming, the Labor Union Chairman and Lin Wenjun, manager of the Department of Safety and Environmental Protection attended the activities.



On behalf of the Company and the Labor Union, Chairman Chen extended sincere greetings to the staff who endured the "baking test" on the front lines of the high temperature, and presented them with summer supplies such as Huoxiang Zhengqi water, toilet water, and wind medicated oil. At the same time, Manager Lin of the Department of Safety and Environmental Protection emphasized the precautions for high-temperature operations and the importance of safe production and standardized operations in daily work. The warm from the Company and the Labor Union extended to everyone, creating a more comfortable and safer working environment, truly sending warmth and care to the hearts of front-line workers, and continuously enhancing the sense of gain, happiness and belonging of EGING employees.

# **Public Charity**



Case: 2023 May Day Condolence Activities

On the occasion of the May 1st International Labor Day, Chen Jiangming, chairman of EGING PV Labor Union, together with the Dongcheng Subdistrict Office, went to Dongcheng Subdistrict Mingxing Village to carry out condolence activities.



Mingxing Village is located on the east side of Dongcheng Street. The village has weak collective economic foundation and it is a link location for the district party secretary Lu Qiuming. In the past three years, the village has taken party building as a guide to improve the village economy and build service guarantee projects. After learning that a group of volunteers to participate in the poverty alleviation work in Mingxing Village, Chen Jiangming, chairman of the Company's Labor Union, immediately organized relevant personnel to purchase a batch of daily necessities, express condolences to the volunteers who worked hard on the front line of poverty alleviation, and express his sincere gratitude for their selfless dedication. They are the most beautiful workers in this spring and the most beautiful scenery in the Dongcheng Street. The Company made every effort to improve the working and living conditions of volunteers, assist in the construction of beautiful villages, and actively practice the social responsibility of EGING PV.

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# **Appendix**

## Report Index

#### **GRI Index**

Statement of use	Eging PV has reported the information cited in this GRI content index for the period from January 1, 2023 to December 31, 2023 with reference to the GRI Standards.
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	2-10 Nomination and selection of the highest governance body	P45
	2-11 Chair of the highest governance body	Annual Report
	2-12 Role of the highest governance body in overseeing the management of impacts	P44
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	2-14 Role of the highest governance body in sustainability reporting	P15
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	2-20 Process to determine remuneration	Annual Report
	2-21 Annual total compensation ratio	Annual Report
	2-22 Statement on sustainable development strategy	P14
	2-23 Policy commitments	/
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	2-25 Processes to remediate negative impacts	/
	2-26 Mechanisms for seeking advice and raising concerns	/
	2-27 Compliance with laws and regulations	ESG Report
	2-28 Membership associations	/
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	3-2 List of material topics	P19
	3-3 Management of material topics	ESG Report
	201-1 Direct economic value generated and distributed	P09
	201-2 Financial implications and other risks and opportunities due to climate change	/
Economic Performance 2016	201-3 Defined benefit plan obligations and other retirement plans	Annual Report
	201-4 Financial assistance received from government	Annual Report
Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	/

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matrect economic impacts 2016	203-2 Significant indirect economic impacts	/
Procurement Practices 2016	204-1 Proportion of spending on local suppliers	Annual Report
	205-1 Operations assessed for risks related to corruption	/
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	205-3 Confirmed incidents of corruption and actions taken	P10
Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	P48
	207-1 Approach to tax	Annual Report
T2010	207-2 Tax governance, control, and risk management	Annual Report
Tax 2019	207-3 Stakeholder engagement and management of concerns related to tax	Annual Report
	207-4 Country-by-country reporting	Annual Report
	301-1 Materials used by weight or volume	/
Materials 2016	301-2 Recycled input materials used	/
	301-3 Reclaimed products and their packaging materials	P28
	302-1 Energy consumption within the organization	P11
	302-2 Energy consumption outside of the organization	/
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	302-4 Reduction of energy consumption	P55
	302-5 Reductions in energy requirements of products and services	P55
	303-1 Interactions with water as a shared resource	P56-57
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	303-3 Water withdrawal	/

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Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Not Applicable
	304-2 Significant impacts of activities, products and services on biodiversity	Not Applicable
blodiversity 2010	304-3 Habitats protected or restored	Not Applicable
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	Not Applicable
	305-1 Direct (Scope 1) GHG emissions	P11
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	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	/
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	306-4 Waste diverted from disposal	P58
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	4037 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	P63-64	
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	404-3 Percentage of employees receiving regular performance and career development reviews	P12	
Diversity and Equal Opportunity	405-1 Diversity of governance bodies and employees	P45	
2016	405-2 Ratio of basic salary and remuneration of women to men	/	
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Freedom of Association and Collective Bargaining 2016	407-1Operationsandsuppliersin whichtherighttofreedomofassociationandcollectivebargainingmaybeatrisk	No accidents in the reporting period	
Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	No accidents in the reporting period	
Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	P68	
Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	/	

GRI STANDARD	DISCLOSURE	LOCATION
Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	No accidents in the reporting period
	413-1 Operations with local community engagement, impact assessments, and development programs	/
Local Communities 2016	413-2 Operations with significant actual and potential negative impacts on local communities	No accidents in the reporting period
Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	P39
	414-2 Negative social impacts in the supply chain and actions taken	P39
Public Policy 2016	415-1 Political contributions	/
Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	P36
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	No accidents in the reporting period
Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	/
	417-2 Incidents of non-compliance concerning product and service information and labeling	No accidents in the reporting period
	417-3 Incidents of non-compliance concerning marketing communications	No accidents in the reporting period
Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	No accidents in the reporting period

Message from Sustainable Development Innovation-driven Corporate Compliance Protecting Green Stick to the Bottom Creating Long-Adherence to About EGING PV 79 About the Report **Appendix** the Chairman Management Development term Value Operations Ecology Line of Safety People-oriented

### **Reader Feedback**

Dear readers:

Thank you for reading our ESG Report for 2022! We sincerely expect to hear your opinions and suggestions, which will help us improve our ESG work and management. Please answer the questions below and return the feedback form to us:

Multiple choice (please check)

Item	Excellent	Good	Average	Poor
1. This report gave a full and accurate repre-sentation of the company's economic, social and environmental impacts on all major as-pects				
2. This report gave a clear, complete and accurate disclosure of information, indicators and data				
3. This report is clear and easy-to-read in terms of language, content organization and graphic design				

### **Open-ended questions:**

2. Which part of the report do you think is most satisfactory?

3 3. What information do you think should have been given in this report?

4. Do you have any suggestion for our future ESG work and report?

We'd appreciate it if you could leave your contact information:

Name:

Employer:

Tel:

Email:

For more information about us, please visit: https://www.egingpb.com/

