2022

Stock code: 600537



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Environmental, Social and Governance (ESG) Report of Eging Photovoltaic Technology Co., Ltd.

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About the Report

To pursue better ESG practice and strengthen the capability in ESG areas, Eging Photovoltaic Technology Co., Ltd. hereby prepared this 2022 ESG Report (hereinafter referred to as the "Report"), to truthfully disclose the Company's ESG management actions and achievements while addressing concerns of stakeholders.

Organizational Scope of the Report

The headquarters, branches and subsidiaries of Eging Photovoltaic.

Time Range of the Report

The Report mainly covers the period from January 1 to December 31, 2022, and may traces back to previous years in virtue of comparability and continuity.

Report Release Cycle

The report is released annually, with the detailed date of release subject to that of the year.

About Company Names in the Report

For the convenience of expression and reading, "Eging Photovoltaic Technology Co., Ltd." is also referred to as "we", the "Company" or "EGING PV" in the Report.

About Information Sources

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

Preparation References

The Report was prepared in accordance with *GRI Standards (2021),* the *Guidelines for Social Responsibilities of Listed Companies on Shanghai Stock Exchange*, and other relevant guiding documents.

Disclaimer

The Report contains forward-looking statements. Except of 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 forward-looking statements, which may deviate from future results or trends as affected by potential changes.



Message from the President

Committed to delivering the most reliable clean energy, EGING PV drives healthy, steady and sustained development, benefiting stakeholders including shareholders, employees, customers and governments and promoting economic development and social harmony.

To change the traditional energy landscape, while producing and promoting new energy products, the Company fulfills its environmental responsibility by highlighting energy conservation and environmental protection in production; fulfills its responsibility in serving local economic development and social stability by paying taxes according to law and providing job opportunities; and, in the principles of "protecting owners' rights, safeguarding operators' interests and valuing employees' labor", fulfills its responsibility to employees by helping them foster their sense of ownership and enterprising spirit through a sound corporate culture. Passionate about public welfare undertakings, the Company takes active part in local culture, education and public utility initiatives, actively assumes its social responsibility and aligns its development with social progress.

Transforming Ideology and Building a CSR System

With the further integration of global economy and development of market economy, taking up CSR is recognized by more and more enterprises as it will deliver an enterprise greater economic benefits, a stronger image and a better way to demonstrate its culture and values in return. Furthermore, this will boost enterprise sustainability, improve people's life quality, maximize the interests of stakeholders, and lay a foundation for stronger competitiveness. Both domestically and internationally, it has become a general trend for an enterprise to assume its social responsibility and put in place a complete CSR system. The Company vigorously publicizes the CSR system and transforms ideology to integrate the concept that an enterprise lacking the sense of social responsibility is unlikely to gain a foothold in the increasingly intense competition into every link of operation, advancing the establishment of the CSR system and its own development.

Strengthening Scientific Management and Highlighting Environmental Protection

The Company put in place the IS09001:2015 quality management system, IS014001:2015 environmental management system, IS045001:2018 occupational health and safety management system, IECQ QC080000:2017 hazardous substance process management system, IS050001 energy management system, and TS 62941 management system for the PV industry, among others, to combine production with quality management, reduce unnecessary links and tighten control over critical links in production. The Company completed the formulation of safety standards, and was certified as a Level II enterprise in standardized





EGING PV

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safe production. The Company carried out a clean production and energy conservation campaign, refining overall management, intensifying pollution treatment, raising employees' awareness in the reduction of energy consumption, and achieving the target of "saving energy, reducing pollution and increasing efficiency". In 2017, the Company was listed among the first State-level green factories in China.

People-oriented and caring for employees

Being people-oriented, the Company aligned employees' personal values with corporate values, and fostered a corporate culture with quality at the core. The Company signed labor contracts with all employees, purchased social endowment insurance, unemployment insurance, medical insurance, work-related injury insurance and maternity insurance for employees, and regularly organized physical examinations for employees, effectively protecting their legitimate rights. The Company built employee apartments to create an environment ideal for both living and working. The Company strengthened safety inspections, and intensified safety education to raise employees' awareness of occupational safety, self-protection and observance of disciplines, to protect their personal safety. The Company increased employees' renumeration step by step, and trained employees to

enhance their professional skills and overall competence and promote the robust development of the enterprise.

Engaging in Public Welfare Undertakings and Giving Full Play to CSR

While pursuing its own development, EGING PV keeps in mind its CSR by taking active part in public welfare undertakings. In 2008 alone, the Company donated more than RMB10 million to charitable initiatives including Wenchuan Earthquake relief, Jintan Charity Federation, assistance to schools and students, assistance to elders and people in financial difficulties and new countryside construction. The Left-Behind Children, a child play produced by Hualuogeng Art Troupe sponsored by the Company, won the "the Best Works Award", the first time a county-level city saw the award. For years, EGING PV has performed its CSR by contributing to the society, providing paired assistance, helping the disabled people and supporting new countryside construction. Since its inception, the Company has donated over RMB40 million in total.

Strengthening Integrity Construction and Fulfilling CSR

The Company highlighted integrity construction, created new modes of integrity management, defined targets for integrity construction, and established an integrity management system. The Company leveraged diverse channels to gain relevant credit information, bolstering the foundation for credit management. Meanwhile, the Company underscored tax management, paid taxes according to law, regulated corporate operation, and worked to enhance its reputation and demonstrate its values. By paying taxes in accordance with law, the Company earned a high reputation and more business opportunities. For years in a row, the Company has been honored the "Enterprise Observing Contracts and Valuing Credit", "3A Credit Certificate", "Honest Enterprise in Labor Protection", "Honest Enterprise in Bank Loans", "Advanced Enterprise Governing According to Law, Operating Honestly and Assuming CSR" and "Level A Credit in Tax Payment", among other titles.

> Tang Jun General Manager

> > August 2023





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About EGING PV

Company Profile

Established in 2003, EGING PV has a registered capital of RMB2, 129.46 million. As of the end of 2022, the parent company and major subsidiaries employed 1.970 persons in total, and covered a land area of over 2, 500 mu. As a major PV product manufacturer in China, EGING PV specializes in the production and sales of high-efficiency crystalline silicon solar Cells and modules, with an established production capacity of 5GW PERC Cells and 10GW modules. In addition. facilities with a production capacity of 10GW highefficient N-type TOPCon Cells are currently under construction, and expected to be fully operational in Q4'23. Meanwhile, the Company extends the industrial chain into PV power generation, having successful experience in constructing and operating PV power stations. In 2011, EGING PV was successfully listed on China's A-share market through Shanghai Stock Exchange. In 2019, Keenstar became the largest shareholder of EGING PV, takingEGING PV into a brand-new 3.0 era.

For years, EGING PV has been on the "world's Tier 1 PV manufacturers" list released by BloombergNEF, an internationally authoritative agency. Also, it's among the top 10 PV brands in China, providing leading Chinese central energy enterprises with high-quality PV modules, and one of the suppliers under China's Top Runner Program, boasting globally advanced production lines.

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 at home. Overseas, while further tapping the traditional European market, the Company also increases presence in emerging markets including Japan, southeast Asia and Latin America. As of 2022, EGING PV has shipped 27 GW of goods in total to 52 countries and regions across the world.





¹ Main subsidiaries include Changzhou Eging Photovoltaic Technology Co., Ltd., Changzhou Jintan Zhixi Yijing Photovoltaic Power Generation Co., Ltd., Eging New Energy (Changzhou) Co., Ltd., Chuzhou Egine Photovoltaic Technology Co., Ltd., and Eging Photovoltaic Europe Co., Ltd.

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Sustainability Strategy



Short-term development strategy

The Company will remain focused on its main businesses including Cell preparation, module enveloping, and PV power generation, be aligned with China's carbon peaking and carbon neutrality policy, and seize the opportunities in the PV industry. By increasing production capacity, reducing cost, boosting efficiency and exercising scientific management, the Company will give full play to its advantages in expertise, brands and quality, consolidate the position of its products and services in the market, scale up production, and make the business bigger and stronger.

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Medium and long-term -~development strategy

While pursuing steady business development, the Company will respond actively to China's goals of peaking carbon dioxide emissions by 2030 and achieving carbon neutrality by 2060, increase input in R&D, improve product performance and enrich product categories. Also, the Company will improve established production processes, production capacity and quality assurance systems, to further enhance production efficiency and lower production cost. While ensuring steady product quality, the Company will expand the production capacity of cells and modules, and seek opportunities in the upstream of the industrial chain to create a mode of vertically integrated operation. By building distributed power stations, the Company will steadily increase investment in PV power stations and improve the capability in operating PV power stations.

Corporate Culture



Delivering the most reliable clean energy



To be a global leading supplier in PV intelligent manufacturing and smart energy solution



Diligent inspire Actions, Trust through Honesty, Keenstar to Aspiration



Protect owners' equity, Safeguard operators' interests, Care for employees



History

Established in 2003, EGING PV put into operation the silicon wafer line in 2005 and the Cell line in 2006. In 2007, the Company unveiled PV modules, and was awarded by the Ministry of Science and Technology the certificate of "Key High-Tech Enterprise". In 2008, the Company was named by the Department of International Cooperation of the Ministry of Science and Technology as the "International Scientific and Technological Cooperation Station", approved to set up a post-doctoral research station, and rated as a "key high-tech enterprise under the National Torch Program". In 2009, the Company was ranked among the Top 500 private enterprises in China. In 2011, the Company was successfully listed on Chinese A-share market through Shanghai stock exchange. In 2015, the Company was included in the Top 10 Chinese PV brands, certified as a "Top Runner" by CQC, and put on the "world's Tier 1 PV manufacturers" list by BloombergNEF. In 2019, Keenstar invested inEGING PV and became its controlling shareholder. In the subsequent three years, under the leadership of the management and through concerted efforts of all employees, the Company has worked vigorously on the expansion of production lines and the renovation of technologies. By far, the Company has established a production capacity of 5GW PERC Cells and 10GW modules: new facilities with a production capacity of 10GW high-efficient N-type TOPCon Cells are currently under construction, and expected to be fully operational in Q4'23.





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Business Presence



Direction 1: Cell preparation

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EGING PV

- High-end production and test equipment
- Mass production of high-efficiency and low-attenuation PERC cells
- Selective emitter equipment and technology
- Mass production of TOPCon cells with a high efficiency, a high double-sided yield, a low temperature coefficient and low attenuation



Direction 2: Module enveloping

- REIS fully automated module enveloping line
- 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

Direction 3: System application

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



Direction 4: Maintenance and operation

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



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Brighter Future

Honors and Awards

In 2022, EGING PV won the following honors/awards:



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Operating Highlights Operating Performance										
Operating income RMB10.023 billion	۱ ۱	Total assets RMB11.799 bi	llion	Net profits attrib shareholders of RMB127 r	uted to the listed company nillion	F	ax paid RMB113 millio	n	Employee ren RMB242	umeration
Loan interests paid to banks and other creditors RMB72 million	s S	Other social costs caused environmental pollution o RMB0	d by r others							



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Empowerment through Technological Innovation

Innovation-Led Development

Established two decades ago, EGING PV is the first PV enterprise listed on the A-share market through Shanghai Stock Exchange in China, as well as one of the first PV enterprises that realize vertically integrated production. The Company pursues presence across the industrial chain, and has introduced the globally leading Industry 4.0 fully automated production line from Germany, with the aim to mass-produce high-quality and high-performance products. Currently with a R&D team having over 300 members that comprise 20.15% of its workforce, the Company has applied for more than 400 patents; and input over RMB660 million in R&D over the last five years. To ensure steady development, the Company has rationally leveraged financial leverages, keeping the debt ratio at around 50% for years. Thanks to the good word-of-mouth among customers, EGING PV has become a stable supplier of the leading central energy groups in China.



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EGING PV

A R&D team with over



Representing 20.15%

of the total workforce





Time-honored and reliable



Technologically

leading

Cutting-edge

production lines



Solid support



state-owned

enterprises



Worry-free aftersales services Seging PV

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With a strong focus on the R&D team, the Company has a highly capable R&D team headed by doctors at Shanghai Jiao Tong University, which works on and closely tracks mainstream technologies in the market, and is the first technical team in China that researches and massproduces the monocrystalline PERC technology. The Company is home toEGING PV Engineering Institute, a provincial-level key laboratory, as well as some other 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, the provincial-level enterprise technology center, and Jiangsu Solar Energy Materials Engineering and Technology Research Center. The laboratory set up by the Company is recognized by China National Accreditation Service for Conformity Assessment (CNAS), as well as a TDAP laboratory certified by VDE, an international PV certification agency. The strong R&D workforce provides a solid support for the robust development of the Company.









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Directions of R&D Innovation

Direction 1: TOPCon cells



The Company launched a 10GW TOPCon cell project powered by the PE-Poly coating film technology in Quanjiao, Chuzhou. With commissioning started in early July, the project is currently running on a pilot basis, and will see continued innovation later to improve efficiency and reduce cost. The technologies involved include: (1) TOPCon cell positive-side selective emitter technology. By applying the laser boron doping selective emitter technology to the positive side, the efficiency is expected to increase by 0.3%; (2) Double-sided Poly coating film technology. In the current single-sided Poly-c-Si TOPCon cell structure, the metal electrode on the upper surface is still in direct contact with the silicon substrate and thus generates carrier recombination. By contrast, in the double-sided Poly-c-Si TOPCon cell structure, the metal electrode will not be in direct contact with the silicon substrate, thus significantly reducing carrier recombination and increasing cell efficiency. (3) TBC cell technology. Applying the IBC cell structure, which is not shaded on the positive side and thus can fully leverage sunlight, to TOPCon cells will further improve the conversion efficiency of cells. Despite the huge potential, TBC cells are technically difficult to produce, which will be the focus of our efforts in the future.

Direction 2: TOPCon cell modules



Compared with PERC cells, TOPCon cells feature a higher conversion efficiency, a lower attenuation rate, a lower temperature coefficient and a higher double-sided ratio. Moreover, the cost of changing the PERC production line into the TOPCon production line is relatively low. The mass production efficiency of the latest TOPCon cells developed byEGING PV in the first half of 2023 is up to 26%, and modules 22%, with the same-type cell power up by 10-20W and the whole-cycle power generation up by 3%.

POE is used as the enveloping material of N-type TOPCon cell modules. Consisting of nonpolar molecules with saturated bond, POE is not easily hydrolyzed, low in MVTR and strong in volume resistance, largely slowing the rate of positively charged ions (such as Na+) moving to the surface of solar panel, and improving the reliability of the modules. In addition, thanks to the SMBB technology, lossless cutting technology, double-sided and double-glass technology and large-size design, TOPCon cell modules are of 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 have been widely received among customers both at home and abroad.



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Direction 3: Industrial and commercial rooftop BIPV projects



In an era when industrial and commercial rooftops are to flourish, EGING PV independently developed the BIPV Star Roof 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 the BIPV Star Roof 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.

Direction 4: Green design

In recent years, with the increase in the awareness of environmental protection, the transformation of traditional energy has attracted worldwide attention and the PV industry has shown a trend of fast growth. Environmental protection is necessary to both promoting the sustainability of the PV industry and boosting real production. The green enveloping materials of PV modules include:



- Composite frame, based on the glass fiber polyurethane composite recycling technology, feature a low treatment cost, and the recycled products are high in values. Even when ageing, the composite borders will have excellent properties and good load performance. The composite frame will show bigger advantages in the hypersaline environment in coastal areas.
- 2 Lead-free junction boxes: electric resistance welding clamps module bus bars and box terminals with electrode, and, leveraging the internal resistance of welded workpieces and contact resistance, heats welds with instant large current to weld them together. Almost without heat conduction, the process is highly efficient, and free of noise, hazardous gas or lead, and tin supplementation is also unnecessary.
- 3 Dealcoholized organic silicone sealants are free of diacetylmonoxime, a cancerogenic substance, and non-metal corrosive, featuring excellent properties.
- 4 The PV backsheets are increasingly produced with the low-fluoride or fluoride-free technology, with the ageing performance similar to that of fluoride-bearing backsheets, and are expected to gain a bigger market share in the future.
- 5 The antiacid EVA enveloping encapsulant is suitable for the high-end modules in harsh humid and hot environment or high-standard household environment, and can improve the anti-ageing performance of the modules.
- 6 The thermoplastic POE features a short lamination time and low-temperature lamination, reducing energy consumption in production, and is easily recycled when heated.



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R&D Platforms

Platform 1: Jiangsu (Eging) PV Engineering Institute

Jiangsu (Eging) PV Engineering Institute was established in July 2011, with a total investment of RMB300 million. The institute introduced 120 advanced instruments, including solar energy simulators and local discharge testers, set up the special materials R&D center, special equipment R&D center, new product development center, system engineering research center, test center and industrialization center, and completed the development and research on highefficiency TOPCon and HJT cells, the test and research on the outdoor attenuation of high-efficiency cell modules, the research on BIPV system solution and implementation, and the research on the mass production of the N-type high-efficiency cell module enveloping solution. It aims to become a base for the design, development, manufacturing and test of new products in the provincial or even national PV industry.

Platform 2: 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 high-efficiency and low-cost 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 3: Jiangsu Enterprise Technology Center

Jiangsu Enterprise Technology Center has a highly experienced research team consisting mainly 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 high-efficiency and energy-saving sintering technology and chain-type EVA curing technology, and has designed some test contents not covered by IEC61215 and IEC61730 standards, such as the module crack detection system and salt mist test chamber, to tighten control over product quality.









EGING PV

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–) 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 post-doctoral 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.





ESG Enhancement of Management Corporate Governance

Practising Green Opening-up and Win-Development Win Cooperation

Commercialization of Innovation Outcomes

Case 1: Commercialization of high-efficiency TOPCon cells

P-type PERC cells experience a bottleneck in the increase of efficiency, with the average efficiency of mainstream large-sized PERC cells as 23.5%, and the highest efficiency of Longi PERC cells as 24.06%, which is close to 24.5%, the ultimate efficiency of PERC cells. N-type cells have several benefits, enjoy huge potential in the increase of efficiency, and see increasingly lower investment cost, with the average efficiency at 25.6%+. Fraunhofer ISE, a Germany-based research institute, raised the concept about TOPCon cells for the first time in 2013. TOPCon cells feature a super-thin tunneling oxide laver and a highly-doped thin polycrystalline silicon layer on the back side, which jointly form a passivated contact structure. Based on the concept, we began development of TOPCon cells. First, we examined different technical routes, and to develop TOPCon cells, we need to add boron diffusion equipment, laser doping equipment, polycrystalline silicon deposition equipment and RCA cleaning equipment to the existing PERC equipment. Then, we validated efficiency respectively using LPCVD, PECVD and PVD processes, calculated equipment cost and production cost, and finally chose the PECVD technical route for lower cost and higher efficiency. In September 2022, we planned a 10GW TOPCon cell project at our Quanjiao base.

Case 2: Sales of TOPCon cell modules in overseas markets

In 2021, the mass production efficiency of PERC cells increased to 23.1%, 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 2022, 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 the first half of 2023, the mass production efficiency of the highefficiency TOPCon cells newly developed by EGING PV was up to 26%. The mass production efficiency of enveloped modules was up to 22%; the power of the same-type products increased by 10-20W, and the whole-cycle 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.





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Case 3: Commercialization of PECVD multilayer composite films

Earlier silicon solar cell passivation technologies focused on the thermally grown SiO₂ passive film, which is great in surface passivation. However, for silicon wafers of poor guality, a long time of high-temperature oxidation will increase their dislocation density inside and trigger new defects, causing the minority carrier lifetime to decrease significantly and cell performance to decline. The antireflection preparation technology is also one of the key technologies used to produce solar cells, with a lower reflectivity allowing more light to enter cells and thus increasing the current output of solar cells. So, almost all crystalline silicon PV product manufacturers use Si₂N₄ as the antireflection passive film. In the PV industry, Si₂N₄ film is the only material that can realize antireflection, surface passivation and bulk passivation in one process, and is hard, dense in structure and steady in chemical performance. However, Si_3N_4 has a poor ability in adhering to silicon, and the structural interface of Si-Si₃N₄ is under high stress and of high density, causing instability and affecting surface passivation effects. The SiOxNy-SiO₂-Si₃N₄ laminated passivation structure is stable as it combines the good properties of Si₀₂- Si₃N₄ interface and the excellent chemical properties of Si₃N₄ film. In such a passivation structure, SiON is a substance between Si₃N₄ and SiO₂, with the electrical properties and optical properties between the two. By changing its composition, the refractive index can be controlled between 1.47(SiO₂) and 2.3(SiNx). The laminated passivation film will be formed by first growing three layers of SixNy thin film on silico wafters, then growing one layer of SiOxNy on the SixNy film, and finally growing SiO₂ on top. The laminated passivation structure is stable as it combines the good properties of SiON-silicon interface and the excellent chemical properties of Si₃N₄ film. This produces excellent passivation and antireflection effects. The thickness of the film coated on the front side is 75nm, and the refractive index is 2.05. Applied to mass production, the film will help improve the cell conversion efficiency by 0.1%.

Case 4: Aggressive launch of industrial and commercial rooftop BIPV projects

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 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.

In 2023, EGING PV launched a BIPV demonstration project by installing the PV systems on about 100, 000 m^2 roofs of its own plants. With an installed capacity of 19.8MW, it's a super-large power station on industrial and commercial roofs, and expected to be put into use at the end of 2023. Based on a service life of 25 years, the project will annually generate 17.212 million kWh on average, and more than 400 million kWh in total.



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ESG Management

Communication with stakeholders





EGING PV

ESG Enhancement of Corporate Governance

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Materiality Evaluation

To learn better about stakeholders' expectations and demands and make the ESG report more pertinent and substantive, the Company carried out preparation by three stages, i.e. identification, surveys and screening of issues:



Materiality evaluation process:



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COLUMN TWO		

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Evaluation results:

Degree of disclosure	Issues
Important disclosure	Clean technology linked opportunities, product quality and safety, R&D innovation, corporate governance, employee health and safety, greenhouse gas emission, employee management, risk management and internal control, supply chain management, privacy and data security, IPR protection
Relatively important disclosure	Operation compliance, response to climate change, clean production, anti-corruption, employee training and career development, care for employees, waste discharge and management, water resources management
General disclosure or non-disclosure	> Energy management, public welfare and charitable activities, pandemic prevention and control

Enhancement of Corporate Governance





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.





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.



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, 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.



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Appendix

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, including one supervisor who is an employee representative, 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.



Compliance Information Disclosure

The Company has fulfilled its information disclosure obligations in a true, accurate, complete, timely, and fair manner in strict accordance with relevant laws and regulations and the Company's *Information Disclosure Management Policy*, without any information leakage or insider trading, to ensure the fair access to the Company's information for investors.

Protection of Shareholders' Rights and Interests

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 society, suppliers, customers, employees, and other stakeholders, and has effectively fulfilled its social responsibilities and obligations.

Internal Risk Control System

Risk Management

About

EGING PV

The Company's risks can be categorized by their nature: strategic risks, market risks, financial risks, operational risks, legal risks, etc.



Strategic risk: Factors affecting the realization of strategic objectives, such as mismatching between strategic positioning or strategic choices and the internal and external environments faced by the Company, and strategic implementation, inadequate monitoring and so on;

Market risk: Market changes in product or production factor prices, exchange rates, interest rates and other factors affecting the realization of the Company's business objectives;





Financial risk: Failure to organize accounting, prepare financial accounting reports and disclose relevant information in full compliance with relevant accounting standards and accounting systems; failure to establish or implement relevant asset management systems and cost control systems, resulting in incomplete, inaccurate and untimely financial accounting reports and information disclosure, decrease or loss of the use value and liquidity of assets, high costs, declining product competitiveness and other factors affecting the realization of the Company's reporting objectives and its credit ratings and cash flow capacity;

Operational risk: Factors impeding or affecting the realization of business objectives, such as improper decisions in the operation of value chains, including R&D, purchase, production, and sales;



Legal risk: Factors affecting the realization of compliance objectives due to failure to implement national laws, regulations, and policies as well as relevant documents of the Shanghai Stock Exchange fully and conscientiously.



EGING PV

Five Principles of Risk Management



Internal Control

Enhancement of

The Company determined the main entities, operations and matters as well as high-risk areas to be included in the scope of internal control evaluation based on the risk-oriented principle.

Main entities included in the scope of evaluation

The combined assets of the entities included in the scope of evaluation, including the Company and its controlling subsidiaries, including Changzhou Eging Photovoltaic Technology Co., LTD., Changzhou Jintan Zhixi Yijing Photovoltaic Power Generation Co., LTD., Shenzhen Yijing Photoelectric Energy Co., LTD. and Eging Photovoltaic Europe Co., LTD., accounted for 99.15% of the total assets in the Company's consolidated financial statements, and the combined operating revenue accounted for 99.99% of the total operating revenue in the Company's consolidated financial statements.



The combined assets of the entities included in the scope of evaluation accounted for 99.15% of the total assets in the Company's consolidated financial statements.

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The combined operating revenue accounted for 99.99% of the total operating revenue in the Company's consolidated financial statements

Main operations and matters included in the scope of evaluation

Operation and management activities such as organizational structure, development strategy, human resources, corporate culture, social responsibility, capital activities, purchase, asset management, sales, engineering projects, guarantee, financial reporting, comprehensive budget, contract management, internal information transfer and information system.



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The following high-risk areas have been emphasized:

Sales	Including policies and procedures for sales plan management, customer management, sales pricing, sales shipment and revenue recognition, sales invoice management, and accounts receivable management.
Purchase	Including policies and procedures for purchase planning, supplier management, purchase requisition and approval, purchase contracts, purchase acceptance, and purchase payment management.
Funds management	Including policies and procedures for fund raising, investment project development and approval, bank account management, bank receipt and payment management, bank reconciliation management, employee loan management, and note management.
Asset management	Including policies and procedures for fixed assets and inventory acceptance, acceptance, collection, dispatching, counting, depreciation, scrapping and cost accounting.
Contract management	Including policies and procedures for the conclusion and approval of all types of contracts, file management, customer credit management, and the custody and use of seals.
Information system	Including policies and procedures for access control of programs and data, financial system change management, program development, and system operation.
Human resources	Including policies and procedures for manpower demand planning and talent recruitment management, employee regularization and job grade adjustment, labor contracts, employee training and assessment, salary calculation and payment, and employee departure management.
Financial system	Including policies and procedures for static data maintenance, accounting management, financial settlement, related transactions, preparation of financial statements, financial analysis reports, and management of accounting files.
Financial system	Including policies and procedures for budget preparation and approval, budget execution and supervision, and budget adjustment.

Findings from the internal control evaluation:

Based on the determination of material weakness in the Company's internal control over financial reporting, as of the base date of the internal control evaluation report, there was no material weakness in internal control over financial reporting, and the Board of Directors believed that the Company has maintained effective internal control over financial reporting in accordance with the corporate internal control system and the relevant regulations, in all material respects. According to the determination of significant deficiencies in the Company's internal control over non-financial reporting, no significant deficiencies in internal control over non-financial reporting were found as of the base date of the internal control evaluation report. No factors affecting the conclusion of the internal control effectiveness evaluation occurred between the base date of the internal control evaluation report.





Business Ethics

Avoiding Conflict of Interest

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. To avoid conflict of interest, employees are prohibited from engaging in the following behaviors without written declaration to and consent from the Company:

(1) Employees are strictly prohibited from violating the principle of non-competition by engaging himself/herself or his/her close family members in self-employment or cooperating with others to operate a business of the same kind as the Company's or in an upstream/downstream relationship;

(2) Employees are strictly prohibited from having a significant ownership interest or financial arrangement, or having an office, part-time, consulting or employment relationship with any supplier, customer, business partner or competitor with whom the Company has a business relationship;

(3) Employees are strictly prohibited from accepting any benefit of any kind, such as gifts, discounts, or gratuities of any value, from individuals or economic entities seeking to do business with the Company;

(4) Employees are strictly prohibited from utilizing their work time to engage in a second career:

(5) Other behaviors that may present a conflict of interest. When the conflict of interest is unavoidable, employees are required to immediately declare the conflict of interest in writing to the department head, the personnel involved in the conflict of interest serving as the department head and above must declare to their superior leaders, request to recuse themselves from the relevant work, and notify the Company's internal control and audit department.

Integrity and self-discipline norms

Managers take the lead in studying the Employee Integrity Handbook to regulate their own behavior, promote professional ethics, strengthen self-discipline, and play an exemplary role.

Employees are strictly prohibited from privately accepting entertainment activities invited by entities or individuals that have economic business dealings with the Company and any banquet that has an impact on the normal exercise of duties.

Employees are strictly prohibited from taking advantage of their positions to use the Company's trade secrets and business resources they have in the Company for personal profit-making activities and against the Company's interests.

Employees are strictly prohibited from taking advantage of their positions to illegally use company assets, commit embezzlement, theft, fraud, misappropriation, or private distribution, or occupy the Company's property by other illegal means.

Within the Company, it is strictly prohibited to have any form of economic transactions and banquets between leaders and employees due to work arrangement, performance evaluation, and job promotion.



Employees are strictly prohibited from soliciting or accepting any form of benefits (including but not limited to: cash, valuables, shopping cards, stocks, options, gift certificates, securities, insurance policies, commissions or kickbacks. loans with significantly lower-than-market interest rates, cash equivalents, consumer services, and gratuitous rental of property, etc.) from the Company's partners or potential partners, out of any reason.



Employees are strictly prohibited from participating in gambling games (including but not limited to mahjong, card games, golf tournaments, etc.) organized by competitors/suppliers/customers/merchants.



Do not reimburse bills that should be paid by individuals with business units; do not borrow money or goods from business units or individuals.



Do not take advantage of personal and family celebrations to entertain contractors and suppliers and accept gifts.



Do not participate in other activities that violate laws and regulations.

Supervision and Accountability

Supervision:

- The Board of Directors and the General Manager's Office of the Company are responsible for the organizational leadership in
 respect of integrity and self-discipline, the vice president in charge is responsible for the direct leadership in respect of integrity
 and self-discipline of the personnel under his/her management, and the department heads are responsible for the management,
 supervision and reporting of the integrity and self-discipline of the personnel in their departments.
- The Company's middle-level managers and above shall sign a statement of responsibility for integrity and self-discipline with the Company (commitment), and the Company will timely circulate a notice on any individuals and things violating the provisions of integrity and self-discipline.
- The leaders of the Company regularly talk with the department heads about integrity and self-discipline to identify that the
 incipient problems of managers in connection with thoughts of organization, performance of duties, work style, moral character
 and other aspects and have admonishment talks with them.
- The internal control and audit department of the Company is responsible for supervising and checking the implementation of the integrity manual specification, accepting integrity reports, and verifying the reported matters.

Intellectual Property Protection

EGING PV has set up an intellectual property office, established and improved a series of intellectual property management policies. The office is directly led by the General Manager, and staffed with 15 full-time and part-time personnel such as intellectual property engineers. Functions closely cooperate with the intellectual property office to carry out the relevant intellectual property management. There is a provincial-level *Demonstration Center for High Value Patent Cultivation of High-Efficiency Crystalline Silicon Cells and Systems*, and the Company currently has 20 registered trademarks, including 1 EU registered trademark. As of 2022, the Company owns a total of 367 patents, including 114 invention patents.

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Accountability:

• If any employee of the Company violates any provision set forth in the Integrity Handbook, the person concerned and all related personnel will be held accountable according to the Company's *Accountability Management System*.



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- (1) With the effective protection of intellectual property rights for the core technologies independently innovated in the process of R&D, the Company's technological innovation capability has been improved, enabling it to realize new profit growth points, further reduce costs and increase efficiency, and enhance its comprehensive competitiveness and independent innovation capability.
- (2) With application for intellectual property rights, the Company has effectively prevented the imitation by competitors, determined its leading position in the product market, enhanced its ability to withstand risks, and avoided the infringement of other people's intellectual property rights.
- (3) With effective management of intellectual property rights, the management level of the Company has been raised, thereby comprehensively enhancing its competitiveness.



Information Security

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EGING PV

The Company's trade secrets are matters related to the Company's rights and interests, determined in accordance with specific procedures, and limited to a certain range of people within a certain period of time, including: (1) secret matters in major decision-making; (2) business strategies, business directions, business planning, business projects and business decisions that have not yet been put into practice; (3) contracts, agreements, letters of intent, feasibility reports, and important meeting records known within the Company; (4) the Company's budget and final accounts reports and various types of financial statements, statistical analysis reports; (5) all kinds of information known within the Company that have not yet known in the market or have not been made public; (6) the Company's employees' wages, bonuses, labor income and related information, etc.; (7) other matters that should be kept confidential as determined by the Company.

Regarding the protection of trade secrets, employees shall abide by the following provisions in the daily work:

 \bigcirc \bigcirc \bigcirc \bigcirc Employees are strictly prohibited Employees are strictly prohibited Employees are strictly prohibited Employees are strictly prohibited from publishing the sensitive from using their positions to from destroving business information from using the name. logo and information of the Company disseminate the Company's trade without authorized approval. domain name of the Company and without authorization or privately secrets to external entities or other related text or image materials disseminating the decision-making individuals or non-authorized internal involving the name of the Company matters of the Company which emplovees. without authorization and approval. have not been disclosed and from exceeding their authority to make statements or accept interviews with external parties, which will affect the reputation of the Company.

Employees are strictly prohibited from copying or sending the Company's trade secrets to external entities or individuals without authorization. Any employee may not move or copy the Company's data, reports, correspondence, or other important information without authorization, except for duty requirements. All employees are required to turn over all documents, data, and information upon termination of employment or when requested to do so by their supervisor. The obligation to maintain the Company's trade secrets shall survive even after an employee's employment is terminated.

02

Practising Green Development





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Environmental Management

In accordance with the requirements of the Environmental Protection Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes, and other national laws. regulations and relevant documents, the Company has established an ISO14001 environmental management system, adopted an environmental policy of "full participation, enhanced environmental awareness; compliance with the law, prevention of environmental pollution; safe production, energy conservation and waste reduction: continuous improvement. and strengthening of environmental management". set up the Environmental Prevention and Control Responsibility System and the Environmental Prevention and Control Management System, and clearly defined the responsibilities of each department and post for environmental protection and control; and built an environmental prevention and control leading group with the General Manager as the leader, the head of the Department of Safety and Environmental Protection as the deputy leader, and other department heads as members

For waste gas and waste water:

The main pollutants in the Company's exhaust gas include low-concentration particulate matter, tin, non-methane total hydrocarbons, volatile organic compounds, ammonia, hydrogen chloride, chlorine gas, fluorides, and alkali mist, and the main pollutants in wastewater include pH, chemical oxygen demand, suspended solids, ammonia nitrogen, total phosphorus, total nitrogen, fluorides, and anionic surfactants. In May and November 2022, the Company commissioned Zhongke ASM (Jiangsu) Inspection and Testing Co., Ltd. to test the waste gas, waste water and noise, and the results met emission standards. In addition, the Company has one VOCs online analyzer to carry out flow, ammonia nitrogen, COD online analysis for the total outlet of sewage in the east and west plants, which is connected to the monitoring platform of the Ecological Environment Department of Jiangsu Province.

For general industrial solid waste:

The Company commissioned Changzhou Ranton Environmental Technology Co., Ltd. to dispose of general industrial solid waste (sludge), Changzhou Bisha Environmental Technology Co., Ltd. to remove waste (construction waste, scrap material), and Changzhou Jintan Jinxing Environmental Services Co., Ltd. to dispose of domestic waste.

For hazardous waste:

Contracts for waste transfer have been signed with Xuyi Green Technology Co., Ltd. for waste acid and waste alkali, with Changzhou Jintan Jindong Environmental Engineering Co., Ltd. for waste mineral oil, with Jiangsu Dingfan Environmental Services Co., Ltd. for waste drums, and with Changzhou Herun Environmental Technology Co., Ltd. for waste flux, waste drums, waste tin foil paper, waste activated carbon fiber filter cartridges, waste resin, waste rags, gloves, and waste liquid from online monitoring device operation. All these companies have qualifications for hazardous waste disposal.





Embracing A

Appendix

Clean production audit 角

In order to realize the goal of "energy saving, consumption reduction, pollution reduction and efficiency enhancement", decrease pollutant emissions and increase economic benefits, the Company completed the clean production audit in 2022, and put forward and implement a total of 12 no-/low- cost programs and 2 medium-/high- cost programs. The 2 high-cost programs are: 1) to reduce fluoride ion emission concentration, to be specific, using efficient defluoridation agents to degrade the free fluoride ions in water, thereby further reduce the fluoride ion concentration in water. The fluoride ion discharge has been reduced from 8mg/l to 5mg/l, thus fluoride emission down 3mg/l, Assuming a daily discharge of 4000 tons and operating for 360 days, the total reduction of fluoride emissions is 4.32 tons; and 2 to upgrade texturization additive, to be specific, upgrading the pre-cleaning texturization additive MQT-809A to reduce the consumption. Before upgrading, 150ml is added for every 400 pieces, and after upgrading, 100ml is added for every 400 pieces, reducing 0.125ml of additives per piece.

Through this round of clean production audit, EGING PV's road to clean production has been continued greatly. In the future, EGING PV will continually summarize and improve the level of clean production, push clean production to a deeper level, carry out clean production more properly, and strive for greater economic and environmental benefits

Environmental protection investigation and rectification 角

In order to comprehensively implement pollution prevention and reduce the total amount of phosphorus pollution into rivers (lakes), and effectively improve the quality of the water environment, Changzhou Eging Photovoltaic Technology Co., LTD. has commissioned a professional consulting firm to conduct investigations on key phosphorus-related production processes, equipment levels, and "three wastes" pollution prevention facilities. The analysis focused on source control, operation management, and wastewater collection, treatment facilities, etc. to identify existing environmental protection issues, and proposed corresponding rectification plans. The "One Policy for One Enterprise" Environmental Protection Investigation and Rectification Program for Key Phosphorusrelated Enterprises was compiled in September 2022, and the Acceptance Report of the "One Policy for One Enterprise" Environmental Protection Investigation and Rectification Program for Key Phosphorus-related Enterprises was completed in December 2022. One of the key improvement programs is that the wastewater of phosphorus-related enterprises mainly consists of circulating cooling water, and the phosphorus emission will be reduced by about 0.318t by replacing the phosphorus-containing scale inhibitor with a scale inhibitor containing less phosphorus; and facilities such as cofferdams and collection trenches will be constructed in the area where sewage sludge is temporarily stored.



About th Message from Report the President

EGING PV

Empowerment through Technological Innovation

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Responding to Climate Change

As a listed company with a certain industry status in the PV new energy industry, EGING PV has actively put the social development concept that "green water and green mountains are golden mountains" in practice, researching, developing, and producing clean and efficient PV modules, and providing integrated intelligent energy solutions for downstream customers to build PV power stations and develop green energy business. In addition, in 2022, for newly expanded cell and module projects, the Company controlled the entire process of equipment selection and energy consumption reduction, adopted green environmentally friendly production equipment and building materials and further reduced the water, electricity and gas usage and waste emissions in the new workshops so as to build a green recycling manufacturing system and contribute to energy saving and emission reduction for the whole society. The Company also constructed self-generation and self-consumption distributed PV power stations with surplus electricity sold to the grid on all its plant roofs, sheds, and other

public areas, and implemented the Zhixi Fishery PV Power Plant project with a total installed capacity of 190.60MW. By the end of 2022, the Company's PV power plants had generated a total electricity of 204, 813, 800 kWh. reducing carbon emissions by 204, 000 tons.

In active response to the concept of green development, the Company has carried out carbon verification, carbon footprint certification and leader certification, and successively obtained green product certification from the China Quality Certification Center (CQC) and the first and highest level 3-star green building materials product certification granted by CQC. The Company has actively promoted green manufacturing, andEGING PV was included in the first batch of green factory list publicized by the Ministry of Industry and Information Technology (MIIT) in 2017. As a green factory enterprise of MIIT, the Company will continue to take energy saving and emission reduction as its own responsibility, and contribute to the country's ambitious goal of carbon peak and carbon neutrality.





204, 000 tons



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Green Operations

DI Water System Improvement Project

Item	Content	Cost Saving
RO filter saving scheme	 RO membrane needs to be replaced when it gets clogged in about two years and couldn't guarantee the flow required by production. 	 Phase 1 saved RMB 1.22 million of filter replacement cost New ultrafiltration membrane: RMB 2, 250 per filter; cost saving per filter by cleaning: RMB 400
	• An external plant needs to be engaged to clean the RO membrane so that the service life could be extended by two years. Implemented in workshop 1 and 2.	 Phase 2 saved RMB 1.44 million of filter replacement cost New ultrafiltration membrane: RMB 4000 per filter; cost saving per filter by cleaning: RMB 400
DI water recycling scheme	• 500-600 tons of concentrated water is generated when municipal water goes through sand filtration and carbon-sand filtration during DI water production. A storage tank is designed, and the concentrated water is pumped to toilets and cooling towers, thus reducing water consumption.	 Saved about 600 tons of water per day, improved cost by RMB 300, 000, saved annual water cost by RMB 490, 000

DI water system improvement project 1: RO filter saving scheme

Purpose: To reuse the RO filter rather than to replace it.

Reason: The raw water SDI value of RO membrane is bigger than 4. The previous procedure (sand filtration system, ultrafiltration system) cannot completely remove organics and other substances from raw water. RO membrane needs to be replaced when it gets clogged in about two years and couldn't guarantee the flow required by production.

Method: An external plant needs to be engaged to clean the RO membrane so that the service life could be extended by two years.

DI water system improvement project 2: DI water recycling scheme

Purpose: To recycle concentrated water generated by the production of DI water.

Reason: 500-600 tons of concentrated water is generated when municipal water goes through sand filtration and carbonsand filtration during DI water production. 700-800 tons of concentrated water is generated and discharged to wastewater station after RO ultrafiltration membrane (too much salt to be recycled)._o

Method: 500-600 tons of concentrated water is generated during sand filtration and carbon-sand filtration. The introduction of a water tank could enable recycling of the concentrated water by toilets and cooling towers.





EGING PV

Green Products

In response to President Xi Jinping's commitment of carbon peaking and carbon neutrality at the 75th session of the United Nations General Assembly, EGING PV takes concrete actions, making green building materials for green buildings, to support carbon peaking and carbon neutrality. China Quality Certification Center (CQC) issued the first 3-star PV module green building material certificate to Changzhou EGING Photovoltaic Technology Co., Ltd.



Green building materials, also known as ecological building materials and ecofriendly 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 in accordance 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. As one of the first third-party organizations with the qualification for classified certification of green building materials, the CQC provides green building material classified certification services for enterprises throughout China.

The Opinions of the Ministry of Housing and Urban-rural Development and other Departments on Accelerating the Industrialization of New Buildings jointly issued by nine ministries and commissions including the Ministry of Housing and Urban-rural Development and the Ministry of Industry and Information Technology explicitly points out the necessity to promote the application of PV system in combination with buildings. The Notice on Submitting the Pilot Scheme for the Development of Roof Distributed Photovoltaics in the Whole Counties (Cities, Districts) issued by the National Energy Administration requires that in the construction of rooftop distributed photovoltaics in whole countries (cities, regions), the rooftop area for the installation of PV systems shall be at least 50% for Party and government organizations, at least 40% for schools and hospitals, at least 30% for industrial and commercial buildings, and at least 20% for rural houses. 16 provinces including Jiangsu, Shanghai, Liaoning, Henan, Shandong and Guangdong have launched the pilot of whole-

county distributed PV generation, which is conducive to the integration of resources and intensive development, and accelerates the construction of rooftop distributed PV. Guided by the carbon peaking and carbon neutrality goals, PV products will find extensive applications in the building industry, and the properties of PV modules and PV systems as building materials will become increasingly prominent.

The 3-star China green building material certificate for EGING PV, the first of its kind in the PV industry, is a recognition of the Company's products for the high power, high reliability, low attenuation, low energy consumption and green attributes. With this authoritative recognition, EGING PV will continue to engage in green building projects actively, and contribute to carbon peaking and carbon neutrality.





窟 **Guizhou Pingqing 300MW Mountain Agrivoltaic Power Plant Project**

It's the first agrivoltaic power plant in Guizhou, located at an altitude between 2, 300 meters and 2, 500 meters. By the end of 2019, some other PV projects featuring agrivoltaics and installation in mountainous areas were built one after another, such as Xiaoguanshan and Haila Zhongliangzi, bringing the total PV installation to about 2GW.

EGING PV is a major PV module supplier for the projects. The EG-XXXM72-HLV modules of the Star series are the bestselling monocrystalline modules of EGING PV. With extensive use, strong adaptability, and outputs ranging from 530 wp to 550 wp, The modules are particularly suitable for ground mounting and commercial rooftop systems, and ideal for large-scale installations. World-leading suppliers and raw materials, anti-PID technology for everything from auxiliary materials to solar panels, as many as 36 quality tests, and a fully automated robotic production line guarantee the high stability and reliability of our products, and a long service life of 25 years.



03

Opening-up and Win-Win Cooperation





Message from About the President EGING PV

Supply Chain Management

In order to strengthen and standardize the Company's procurement of raw materials and auxiliary materials, meet the production and operation demands, standardize procurement behavior and prevent procurement risks, EQING PV formulated the *Supply Chain Procurement Management System* in accordance with the *Civil Code of the People's Republic of China*, the *Basic Norms for Enterprise Internal Control*, the *Application Guidelines for Enterprise Internal Control No. 7—Procurement* and the actual conditions of the Company.

In 2022, the Company signed a total of 2, 629 procurement contracts for main and auxiliary materials, with a total contract value of RMB10.773 billion. Among them, 312 contracts were for main materials, with a contract value of RMB7.548 billion; 2, 317 contracts were for auxiliary materials, with a contract value of RMB3.225 billion. Meanwhile, the Company brought in 20 more high-quality suppliers in the year, actively developing and introducing new samples and reducing about RMB66.473 million of costs, including RMB5.8068 million for main materials and RMB60.66662 million for auxiliary materials. The cost reduction project cases are as follows:

Department	Items	Content	Cumulative cost reduction
Auxiliary material procurement	Reduce weight of encapsulants	Reduce double glass from 470gPOE+470gEVA to 460gPOE+460gEVA	From January to December 2022, the cumulative cost reduction was about RMB6.6672 million
Auxiliary material procurement	Reduce weight of encapsulants	Reduce single glass EVA from 450g+440g to 440g+440g	From January to December 2022, the cumulative cost reduction was about RMB1.748 million
Auxiliary material procurement	Improve frames	Change the aluminum side frame for 182 double glass frames (M10-B12) from 35 into 30	From April to December 2022, the cumulative cost reduction was about RMB16.4451 million
Auxiliary material procurement	Change double glass backboards to ordinary float glass boards	Change 182 double glass backboards from the original silk screen printing glass to ordinary float glass	From August to December 2022, the cumulative cost reduction was about RMB29.5285 million
Auxiliary material procurement	Change double glass backboards to ultra-clear float glass boards	Change 182 double glass backboards from the original ordinary float glass to ultra-clear float glass	In December 2022, the cumulative cost reduction was about RMB1.05 million (for increasing income)
Main material procurement	Reduce thickness of 182 silicon wafers	Reduce thickness of 182 silicon wafers from 155µm to 150µm	From July to December 2022, the cumulative cost reduction was about RMB5.8068 million





Supplier Rating Standard

Principle of fairness and justice

Supplier management must follow the principle of fairness and impartiality in all stages, ensuring legitimate interests of all suppliers in all stages of procurement.



Principle of resource integration

In selecting suppliers, all functional departments shall select the best from the existing excellent cooperative suppliers. They shall make regular assessment for suppliers for selecting the superior and eliminating the inferior, in order to guarantee the good guality of resources.

Principle of sunshine transparency

Supplier management must follow the principle of incorruptibility and self-discipline, sunshine transparency and open decisionmaking in all stages, without any favoritism, briberies or other irregularities and illegal acts.

Principle of whole-process management

Supplier management shall cover the whole process from warehousing, contract signing, contract performance, quality assurance and supplier assessment. Tendering and procurement personnel and relevant departments shall take serious and responsible attitudes in supplier management throughout the process and provide necessary support and help.

Rate	Description	Remarks
Class A	Suppliers with a performance assessment score of \ge 90 points	Excellent suppliers, can increase the procurement volume appropriately
Class B	Suppliers with a performance assessment score of 70-89 points	Good suppliers, maintain the current procurement volume
Class C	Suppliers with a performance assessment score < 70 points	Unqualified suppliers, issue the "Nonconformance, Corrective and Preventive Measure Report"; those who are rated as class C for two consecutive quarters shall be disqualified, and may be allowed to participate in review after improvement for six months
Blacklist	Suppliers that occur major problems in cooperation and violate the bottom line of cooperation	Never select them as suppliers

Supplier Management and Control Procedures:

The company shall select competent suppliers (of raw materials/logistics/services) according to its actual demands. In selecting suppliers, it shall collect the basic information of suppliers and confirm their qualification. Procurement Department shall inform the suppliers of the Company's relevant requirements and customer requirements for confirmation and sign a commitment contract. In addition, it shall sign the *Guarantee Letter of Non-Use of (Prohibited and Restricted Substances)* with the suppliers to ensure the materials provided by the suppliers in line with the HSF standard.

Procurement Department and SQE shall manage suppliers according to their actual capability and performance. Besides, it shall conduct performance assessment for suppliers and rate them as class A, B and C suppliers in the "Quarterly Performance Assessment Form for Supplier". The total score between 90 and 100 points is rated as class A, the total score between 70 and 89 points is rated as class B, and the total score below 70 is rated as class C. For suppliers that are rated as class A, Procurement Department can increase the procurement volume from them; for those rated as class B, Procurement Department shall maintain the current procurement volume from them; for those rated as class C, Procurement Department shall issue the "Nonconformance, Corrective and Preventive Measure Report"; for those who are rated as class C for two consecutive quarters, Procurement Department shall disqualify them, and may arrange review six months later; for those occur major problems in cooperation and violate the bottom line of cooperation, Procurement Department shall blacklist them and never select them as suppliers.



···· Efforts shall be made to timely dispose poorly-processed raw materials and correct preventive measures.



Product Quality Control



About

Outgoing Quality Control

OQC shall be responsible for checking the appearance, model, power, customer information and other information of packaging boxes for domestic and international shipments (such as international bill of lading number, stickers according to demands of international customers), confirming the complete shipment process and the correct goods and inspecting the carrier vehicles and containers, so as to ensure the shipment quality.

OQC staff shall verify the goods information according to the shipment schedule and the regulations, (checking whether the bill of lading number is consistent with that in the shipment schedule provided by the logistics company and confirming the customer information, power and model of the PV modules loaded). Before loading, the container/truck must be inspected by the "seven-point inspection method" (involving front wall, left side, right side, floor, top, inside and outside of the door, outside/landing gear) to check whether there is any concealed compartment and whether the structure is stable. After the inspection, OQC staff shall have warehouse keepers load the goods. Warehouse keepers are strictly prohibited from loading the goods in advance without being confirmed by OQC staff. OQC staff shall inspect the cartons, wooden pallets, packing belts, corner guards and wrapping films of the PV modules loaded, record the bad information found in the "Shipment Inspection Record Form" and file it by date. For domestic PV modules, OQC staff shall take three photos, namely one for the license plate number and two for overall photos on both sides. For international containers before shipment, OQC staff shall take five photos, namely one for the empty container, one for the vehicle head and the container number, one for the container full of goods, one for the container after the final locking and one for the container lock. The photos taken by OQC staff during the monitoring process shall be classified by date and saved in a special computer of OQC. (The shipment photos shall be saved in a designated computer for half a year).

The final shipment inspection shall be strictly controlled.





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Win-Win Cooperation

Currently, the main business of EGING PV is the production, development and sales of Highefficiency crystalline silicon solar cells and their PV modules, as well as PV power generation. The company has successful experience in both construction and operation of PV plants, further extending the industrial chain to the field of PV plants. By virtue of its forward-looking marketing layout, reliable product quality, good reputation and strong marketing capability, the Company has established long-term good partnership with domestic power groups and large state-owned and central enterprises. In terms of overseas sales, it has vigorously expanded conventional markets in Europe as well as emerging markets in Japan, Southeast Asia and Latin America.

角 EGING PV and Shenzhen Yantian Port Logistics Write A New Chapter of Cooperation

Shenzhen Yantian Port Logistics Co., Ltd. is affiliated to Shenzhen Yantian Port Group, which is a world-class port industry group in Shenzhen. Since its listing 25 years ago, Yantian Port has become one of the preferred ports for the world's largest 200, 000-ton ultra-large-scale ships and a hub port area in South China that is mainly oriented to international shipping lines. Currently, Yantian Port bears more than 1/3 of Guangdong's import and export trades and 1/4 of China's trade with the US.

Both parties discussed the topic of "multi-scenario application of PV plants". Wang Xiaoping, General Manager of Yatian Port Logistics, highly praised the satisfactory achievements made by EGING PV in the construction of large power stations, saying that both sides should give full play to their resource advantages, seize the development opportunities of the Guangdong-Hong Kong-Macao Greater Bay Area and expand "PV + building" and "PV + energy storage" and other new application scenarios. Furthermore, the Shenzhen-Hong Kong cross-border waterway one-stop service of Yantian Port Logistics will be open to Eging PV, providing resource sharing support for cross-border freight of Eging PV. In addition, EGING PV will have the opportunity to access the rich supply chain resources of Yantian Port Logistics, so as to take full advantage of supply chains in fierce industry competition.

Through continuous improvement and innovation, EQING PV has been highly recognized by Yantian Port Logistics with its excellent strength. In the future, EQING PV will be active in long-term cooperation with Yantian Port Logistics and write a new chapter of sincere cooperation between both parties.





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EQING PV and Bauing Establish Strategic Cooperation 肁

On January 24, 2022, EQING PV and Shenzhen Bauing Construction Group Co., Ltd. signed a strategic cooperation framework agreement by cloud video, in order to fully implement national strategies for green buildings, green building materials and energy-saving buildings and help achieve the "dual carbon goals" of carbon peak and carbon neutrality. Both parties will give full play to their respective professional advantage, achieving win-win results through close cooperation.

EQING PV is China's first PV enterprise listed on the A-share market, with 20 years of development history. It is mainly specialized in production and sales of high-efficiency crystalline silicon photovoltaic cells and modules. with an annual production capacity exceeding 15GW. Meanwhile, the Company has successful experience in the construction and operation of PV plants, further extending the industrial chain to the field of PV plants. Currently, it owns fishery & PV power plants (160MW) and distributed PV plants (30.6MW). Besides, its holding subsidiary Changzhou Eging Photovoltaic Technology Co., Ltd. has the grade 3 general contracting gualification for power engineering construction projects.

Bauing is one of the most fully gualified enterprises in China's building decoration industry, with a complete vertically integrated industrial chain of the construction industry as well as the comprehensive construction capability and experience of overseas engineering projects. Bauing is active in expanding distributed PV plants. So far, it has signed a strategic cooperation framework agreement with Zhuhai Airport City Development Group Co., Ltd., with the aim to develop a distributed PV plant project in an integrated way on the roof of buildings of Airport City and its subsidiaries in accordance with regulations and relevant conditions.

For the purpose of win-win cooperation and green development, both parties have given full play to their respective industry advantages in the development and construction of distributed PV plants, ground PV plants and other new energy projects and the promotion of their application by joint efforts. In the future, they plan to make in-depth research and development cooperation in the fields of PV building integration and zero-carbon buildings, build relevant research and development platforms and carry out research and development in the fields of green building materials, smart grid and microgrid.

The signing of the agreement is conducive to promoting the sales of EQING PV's PV modules, the sustainable development of the PV plant business and the steady growth of revenue. After establishing the long-term strategic partnership, Eging and Bauing have coordinated their resources effectively and given full play to their advantages, achieving mutual benefits and win-win cooperation.





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EQING PV Brings Aurora Pro to InterSolar in Munich 角

Intersolar is one of the largest and most influential professional solar energy fairs in the world so far. With a brilliant history of more than 20 years, each session of Intersolar gathers famous companies in the industry. As a world-renowned, long-established PV module enterprise, EQING PV is always committed to research, development and promotion of high-efficiency PV products, and has made important contributions to global dual-carbon goals.

In this session, EQING PV brought Aurora Pro series modules at InterSolar in Munich, Germany, Aurora Pro series modules are designed in large size based on N-TOPCon cells, integrating MBB technology, lossless cutting technology and high-density lamination technology. Designed on the innovative concept of low open pressure and high power, Aurora Pro series modules feature a high power, low costs and high reliability. With the maximum output power of up to 685W, the products are applicable for large-scale ground PV plants, roofs of industrial and commercial buildings and other application scenarios, as well as floating systems and other special usage scenarios. Compared with conventional products, Aurora Pro products have 20-30Wp more power, with a lower attenuation, lower temperature coefficient and higher low-light response. They provide customers with 3% power generation gain, while reducing 2.5% of BOS cost and 6% of LCOE.

EQING PV has always emphasized demands and interests of customers and continued to promote the three major themes of "technical research, product development and standard building", which are the development path and policy that EQING PV has always followed. For one thing, EQING PV will lead and build PV standards and accelerate the green and standardization process of the industry, escorting the booming development of the industry. For another, the Company will continue to develop a variety of PV products for different application scenarios step by step to meet the demands of ground PV plants, distributed PV plants for industrial and commercial purposes and home scenarios and help customers build more efficient, reliable high-yield PV systems, so that every individual in the world can enjoy the dividend of clean energy.



Appendix

Public Welfare and Charity

EQING PV Makes Donations to St. Anna Children's Cancer Research Institute

EQING PV was invited to the 12. Burgenländische Tafelrunde sponsored by Energy 3000 Solar as a senior partner of the latter. At the charity dinner, a special part of the event, EQING PV donated cash and a number of modules to St. Anna Children's Cancer Research Institute.

Burgenländische Tafelrunde, which is an industry gathering of customers and partners sponsored by Energy 3000 Solar, has become an annual tradition of Energy 3000 Solar. The 12th session in 2022 was the largest to date, with more than 360 participants and a duration of three days. Energy 3000 Solar launched its latest digital tool and service solarJet on the site and shared the latest dynamics and development trends in the industry.

Over the years, Energy 3000 has continued to make charitable donations. In 2022, it planned a lucky draw event for local St. Anna Children's Cancer Research Institute and invited its partners to make donations and offer support. EQING PV made a positive response and donated cash and a number of modules to St. Anna Children's Cancer Research Institute, converting their loving care into light and power and sending warmth and hope to the children.

With the spirit of "Keenstar to Aspiration for the Future of PV", EQING PV is committed to providing the most reliable clean energy and creating more value for the whole society, while passing on China's great love to the world.







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HR Management

Employee Statistics

As December 31, 2022, the Company had **1**, **970** active contract workers.











Protection of Women and Minors

To strengthen the protection of female employees and minors, EGING PV has formulated the Protection System for Female Workers and Minors in accordance with relevant national regulations. The HR Department arranges the types of work and jobs for female workers or minors in compliance with national regulations and the general guidelines. The Trade Union examines and supervises the implementation of this system in every department. The system is rigidly enforced by all departments.



Special protection measures for female workers

- The Company may not refuse to employ, dismiss or reduce the pay of female employees on the grounds of marriage, pregnancy, childbirth or breastfeeding, and may not discriminate against women in the grading, promotion and salary adjustment of employees. The principle of equality between men and women must be adhered to.
- Female workers are prohibited from engaging in particularly heavy physical labor (Class III or higher intensity) and toxic or hazardous work.
- Female workers may be temporarily transferred to a suitable position or exempted from night shifts during special protection periods, such as menstruation, pregnancy, childbirth, breastfeeding and menopause.
- In the early phase of pregnancy, three months before delivery or during the breastfeeding period, female workers shall be given a one-hour rest and breastfeeding break every day, without loss of salary as stipulated.
- The HR Department shall organize physical examinations for female workers on an annual basis, and strengthen maternal and child health care.
- For jobs harmful to the health of female workers, the workshops shall take measures to change the organization of work, such as shortening the working day, working in shifts, and adopting "four teams working on three shifts".

Special protection measures for minors

- The Company undertakes not to employ underage workers.
- The Company employed no underage workers in 2022.





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Employee Health and Safety

In 2010, EGING PV passed the ISO 45001 Occupational Health and Safety Management System Certification. It set up an Occupational Health Leading Group headed by the General Manager, appointed the HR Department and the Safety and Environmental Protection Department as the Company's occupational health management organization, and defined the organization's responsibilities. It established an occupational health management system and operating procedures, and carried out occupational health management measures based on the annual occupational disease prevention and control plans and implementation schemes. It also built and gradually improved the Company's occupational health archive and labor health supervision archive.

In accordance with the *Law of the People's Republic of China on the Prevention and Control of Occupational Diseases*, to prevent, control and eliminate occupational hazards, protection the employees' health and their rights and interests, and to improve the production and operation environment, EGING PV provides its employees with a working environment and conditions that meet the following occupational health requirements:



Occupational disease protection facilities are set for positions exposed to occupational hazards

Occupational disease protection facilities are set at a prominent place in accordance with the *Warning Signs for Occupational Hazards in the Workplace (GBZ158)* for positions exposed to occupational hazards.

Production processes and equipment that generate dust and toxic substances shall be mechanized and automated as much as possible, airtightness shall be strengthened, and direct operation shall be avoided. Ventilation measures shall be taken on the basis of the production process. Workplaces that generate dust, toxicant and other hazardous substances shall have facilities for washing floors and walls.

Air in dusty and toxic gas-emitting plants or Class A and B plants shall not be recycled.



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Work-related Injury

In 2022, EGING PV reported 16 work-related injuries (1 less than in 2021), including 7 internal accidents and 9 traffic accidents. Given that traffic accidents made up the majority, the Company will continue to enhance the employees' safety awareness during commuting. Except for one traffic accident happening on December 22, 2022, all work-related injuries in 2022 have applied for workrelated injury determination. Six accidents went through disability rating by competent authorities, and five received working capability assessment (three with Grade 9 disability, 1 with Grade 8 and 1 with no grade).



Employee Training and Development

Employee Training

To strengthen its talent team and improve employee education and training, EGING PV formulated annual training plans and policies based on its development strategy, HR planning and annual management priorities. Below are the main training types:

Onboarding training

It helps new recruits to learn about the Company and fit into the team as soon as possible. The training covers corporate culture, business philosophy, company history, product profile and management specifications, etc.

Orientation training

When a fresh recruit comes to the department, the department head will introduce the colleagues and business of the department to the newcomer, and appoint a mentor to help the newcomer familiarize with his/her job quickly through essential skill training. The mentor's comments at the end of the probation period will be an important reference for the new recruit's probation evaluation .

On-the-job training

The HR Department or functional departments will organize unified internal training sessions on the essential knowledge and skills the employees need to help them maximize their potentials.



Internal training

External training

When an employee's position is changed, the head of the new department or the employee's immediate superior will give him/her a skill training as required by the new position.

Provided as the job requires, mainly technical training, including but not limited to pre-job training, on-the-job training, general skills training, and leadership training.

Provided as the job requires, including but not limited to professional skill training, industry training and training on laws, regulations and policies.



In 2022, the Company organized 45 training sessions, altogether 3, 570 hours, with 2, 380 employees participating.

40 training materials were collected in 2022 and have been uploaded to the enterprise network disk.



窜 **Training on Technological Process and Corresponding Production Line Specifications**

To help new leaders and employees learn about the module shop's technologies and processes, and to enhance the employees' overall quality and professional proficiency, the Company organized a training session on the module workshop's technological process and corresponding production line specifications on November 9, 2022. Xue Jianzhong, Production Supervisor of the Module Division, was a key presenter, and approximately 20 people attended the training.

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The trainers first introduced the current situation of the module workshop and the safety precautions required for each operation, then went through the technological process and module materials in detail, displayed the operations of each link by video, and explained relevant process principles, and at last, demonstrated the features and strengths of our products with the Star Series and the Aurora Series as an example.



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角 Training on Reclassification in Accounting and DuPont Analysis

To help the employees understand financial statements better. learn about the composition and classification of financial statements and improve business development knowledge, the Company organized a training session on reclassification and DuPont Analysis on September 21, 2022, The training was chaired by Wang Zhicui, Deputy Manager of Finance, and attended by nearly 60 employees.





This training consisted of four parts: the purpose of financial reporting and target customers, the modules of financial statements, the reclassification of assets and liabilities, as well as financial analysis of the four capabilities of an enterprise and DuPont analysis. Ms. Wang explained in detail the target customers, the composition of financial statements, and the reclassification of current account items and other items to be reclassified on the balance sheet, based on financial disclosures for the first half of the year. The participants all benefited immensely from in-depth explanation.

窜 **Training on BIPV Market Survey and Competitive Analysis**

To help the employees learn more about BIPV (Building Integrated PV), and encourage them to study and develop BIPV technologies, the Company organized a training session on BIPV market survey and competitive analysis on July 20, 2022. The training was given by Xie Yan, engineer of the Module Technology Department, and attended by about 60 people.

Approximately 60 trainees C



Based on actual cases and technological development, the trainer introduced and analyzed the BIPV market, BIPV business model, BIPV classification, industrial and commercial roofing, civil roofing products, and curtain wall products by analogy, and played a BIPV introduction video, demonstrating the broad application of BIPV from multiple perspectives. The trainees listened attentively and asked questions actively. Ms. Xie answered the questions one by one.



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Career Development

In order to improve the employees' personal qualities and abilities. fully mobilize the initiative and enthusiasm of all employees, and create a fair, just and open competition mechanism, EGING PV formulated relevant management policies to define and standardize the eligibility conditions for employee promotion and the process, and clarified matters related to salary adjustment as needed for its business development.

Basic Promotion Principles

- Equal emphasis on merit and performance. Personal qualities, abilities and achievements at work will all be considered.
- Devel-by-level promotion and skip-level promotion combined. Level-by-level promotion is normally practiced. Those making outstanding contribution to the Company or having special talents can skip a grade.
- S Vertical promotion and horizontal promotion combined. The employees may follow one career path, or change to another path.
- Dup and down both possible. The position and salary are subject to increase or decrease based on the performance appraisal results. When a position is vacant, outside hires will be considered only when there are no proper candidates inside the Company.

Promotion Forms

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Regular promotions:

Irregular promotions:

The Company organizes employee promotions uniformly based on organization structure review and talent inventory after annual performance appraisal, but it does not mean that application must be filed during this period. In view of business development and HR planning, the HR Department will formulate an annual promotion plan and implement the plan approved by the management.

When a position becomes vacant during the year and there are eligible candidates, the promotion process will be initiated in time

Career Growth Paths

Promotion opportunities will be given to employees with the abilities required for continuous growth of the Company; if an employee can not meet the Company's development needs at the current position, he/she will be demoted. The Company offers horizontal and vertical growth paths for its staff.



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an employee could choose the management ladder or technical ladder for a vertical growth, and will be engaged after evaluation and approval by the Company.

- When a management position falls vacant, priority will be given to eligible employees within the Company, and promotion is subject to prior evaluation and examination.
- . When an employee is eligible for a higher position, his/her department could file a promotion application with the HR Department, and promotion is subject to prior evaluation and examination.
- In principle, level-by-level promotion rather than skip-level promotion shall be adopted.



When its business demands, the Company allows the employees to transfer between the management ladder and the technical ladder or between different functions after evaluation.



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Employee Communication

To improve communication between employees and leaders, EGING PV published the leaders' emails and set up a suggestion box as channels to hear the employees' voice. It also established a leaderemployee communication mechanism that comprises informal discussions and face-to-face communication. Through communication, the Company learned about the employees' thoughts in a timely manner, resolved contradictions, and created a harmonious atmosphere.

Caring for the Employees

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:

Lunch with the General Manager

Lunch with the GM is a bridge between the leadership and the grassroots employees aiming to promote their communication and form a nice atmosphere of "to hear the employees' voice, care about their needs and growth, and promote the Company's development." Its principal purposes include:



To offer advice and suggestions for further growth of the Company. Lunch with the GM encourages the employees to voice the problems they have met at work and in everyday life. It also offers a platform for the employees to offer advice and suggestions, and participate in the Company's management.



To enhance understanding and build a harmonious enterprise. Lunch with the GM, not so serious as a formal meeting with the leadership, is simple in form and sustainable, thus allowing for effective tracking and feedback to reasonable suggestions.

The grassroots employees are randomly selected by the General Manager, Vice President of Human Resources and Administration, Manager of Human Resources, and the departments. Their questions at the lunch meeting will be answered on the spot if possible. If not, the HR Department will take down their advice and suggestions, transfer reasonable suggestions and appeals to corresponding departments, and follow up with the improvements and feedback.

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 allemployees 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 facilities to enstruction of harmonious workers' families. It organizes parent-child activities regularly and invites employees' children to visit the Company.





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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.



Sending-coolness Activities

On June 28, 2022, the Company's Trade Union Committee carried out a sending-coolness activity for front-line employees sticking to their positions despite the summer heat that had lasted for days. Chen Jiangming, Chairman of the Trade Union, visited the Wastewater Station, Recycling Station, and Storage Department, and sent heat relief products to the employees in person.

Mr. Chen learned about the working conditions, expressed sincere appreciation to the employees working in the heat, and thanked them for their contribution to the Company. He also asked them to rest well and prevent heatstroke.







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Employee Birthday Party

To spread corporate culture, send the warmth in Company's big family to the employees, recognize their hard work for the Company, and express the Company's care for them, ChangzhouEGING PV held the first employee birthday party this year on February 22, 2022. Mr. Wang, head of the manufacturing workshop, sent birthday cakes and gifts to representatives of the birthday workers, and wishing them a happy birthday and good luck during the Year of the Tiger.

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The Company prepared birthday cake and card for every birthday person. On behalf of the Company, Mr. Wang thanked the employees for their work and dedication. The birthday workers expressed gratitude, and took group photos with colleagues also born in February in a joyous and warm atmosphere. We wish all employees good luck, health, and happiness in the Year of the Tiger and beyond.



Employee Benefits

To standardize the management of employee benefits, enhance the employees' sense of belonging, express the Company care for its employees, and improve its market competitiveness, EGING PV provides a wide range of benefits for its employees:

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- Statutory benefits: Social insurance, housing provident fund
- ✓ Paid leaves: Statutory holidays, marriage leave, funeral leave, maternity leave, paternity leave, sick leave, work injury leave, leave in lieu, annual leave
- ✓ Caring benefits: Marriage gift, childbirth gift, condolence money, hospitalization comfort money, health checkups, commercial insurance.
- Allowances: Vehicle allowance, communication allowance, meal allowance, overtime allowance, high temperature allowance, seniority allowance, expatriate allowance
- ✓ Holiday benefits: Mid-Autumn Day, Women's Day, Spring Festival, Dragon Boat Festival, Labor Day, National Day, etc.
- ✓ Other: Team building activities, birthday party activities, etc.

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Appendix

ESG KPIs

Governance

1 Three meetings

Indicator	Frequency	Resolutions
Shareholders' meeting	5	32
Board meeting	10	50
Supervisory board meeting	7	32

2 Investor communication

Indicator	Unit	2022
Results briefing	Frequency	3
Receiving research organizations	Organization	71
Reply to investors' questions	Piece	60
Field survey and online survey	Frequency	54
Releasing company news by WeChat official account	Piece	50

3 Business ethics

Indicator	Unit	2022
Coverage of supplier communication	%	100
Confirmed corruption incidents	Incident	0
Incidents of unfair competition and antitrust violation	Incident	0

4 Information security

Indicator	Unit	2022
Operation and maintenance support	Frequency	177
Data volume maintained	ТВ	20

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ALC: NOT STREET, NO.		

1 Environmental management

Indicator	Unit	2022
Environmental input	RMB 10, 000	3, 109.98
Input in energy conservation	RMB 10, 000	200
Environmental pollution incident	Incident	0
% of employees receiving environmental training	%	100
% of environmental management system certification	%	100
% of environmental risk evaluation	%	100

3 Water consumption

Indicator	Unit	2022
Waste output	Ton	11, 640.35
Amount of waste recycling in East Plant	RMB 10, 000	138.79
Amount of waste recycling in West Plant	RMB 10, 000	1, 048.45
Waste disposal	Ton	11, 548.27

2 Waste discharge

Indicator	Unit	2022
Water consumption	Ton	3, 720, 000
Water consumption per unit product (cell+ modules)	Ton/MW	690

4 Energy consumption

Indicator	Unit	2022
Natural gas	(m³)	1, 520, 000
Electricity	(KWh)	335, 180, 000

5 GHG emission

Indicator	Unit	2022
Scope 1 emissions	t CO ₂ e	4, 159.62
Scope 2 emission	t CO₂e	235, 799.12

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1 Employment

Indicator		Unit	2022
In-service employees in t	he parent company	Person	6
In-service employees of r	nain subsidiaries	Person	1, 964
Total		Person	1, 970
Retired employees		Person	0
	Production	Person	1, 220
By profession	Technical	Person	396
	Financial	Person	21
	Marketing	Person	46
	Administrative	Person	287
	Total	Person	1, 970
Du advastian	Master and above	Person	27
	Undergraduate	Person	242
by equivation	Below undergraduate	Person	1, 701
Total		Person	1, 970

2 Employee training

Indicator	Unit	2022
Employee training hours	Hour	3, 570
Per employee training hours	Hour	1.5
Employees participating in training	Person-time	2, 380
Company training (including orientation training)	Session	138
Satisfaction with employee training	%	98%
Employees certified through vocational or skill training	%	16.17%

3 Supplier management

Indicator	Unit	2022
Number of suppliers	Supplier	135
% of those signing the supplier guidelines	%	100
% of purchase from local suppliers	%	20
Supplier training	次	10



4 Maternity leave (female)/ paternity leave (male)

Indicator	Unit	Male	Female
Employees entitled to maternity/paternity leave in 2022	Person	1, 288	682
Employees taking maternity/paternity leave	Person	7	12
Employees returning to work after maternity/ paternity leave in 2022	Person	6	12
Return-to-work rate	%	85.71%	100%

5 Occupational health and safety

Enhancement of

Indicator	Unit	2022
Work-related casualties	Person	0
Incidence of occupational disease	%	0
Pre-job occupational health examination	%	100
In-job occupational health examination	%	100
Post-job occupational health examination	%	35
Occupational health and safety input	RMB10, 000	336.28





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Index of Reporting Indicators

GRI Index

Instructions	EGING PV reported the information cited in this GRI Index by reference to the GRI Standards for the period from January 1, 2022 to December 31, 2022.
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Assurance Statement



Independent Assurance Statement

Introduction

TÜV Rheinland (Shanghai) Co., Ltd., member of TÜV Rheinland Group, Germany (hereinafter "TÜV Rheinland", "We") has been entrusted by the management of EGing Photovoltaic Technology Co., Ltd (hereinafter "EGING PV", "the Company") to conduct independent assurance of EGING PV ESG Report 2022 (hereinafter "the Report"). All contractual contents for this assurance engagement rest entirely within the responsibility of EGING PV. Our task was to give a fair and adequate judgment on the Report.

The intended users of this assurance statement are stakeholders who have relevance to EGING PV overall sustainability performance and impacts of its business activities during year 2022 (1 January 2022 ~ 31 December 2022).

TÜV Rheinland is a global service provider of Corporate Social Responsibility (CSR) & Sustainability Services in over 65 countries, having qualified professionals in the field of Corporate Sustainability Assurance, Environment, Social and Stakeholder Engagement. We have maintained complete impartiality and independence during the assurance engagement, and we were not involved in the preparation of the Report contents.

Assurance Standard

TÜV Rheinland undertook the assurance work in accordance with the AA1000 Assurance Standard v3 (AA1000AS v3), Moderate level of assurance.

Scope & Type of Assurance

Our assurance engagement was carried out in accordance with the AA1000AS v3, Type 1 Moderate level on EGING PV ESG performance in the Report. The following assurance criteria were used in performing the assurance work:

- With reference to the GRI Sustainability Reporting Standards (GRI Standards).
- Adherence to the AA1000 AccountAbility Principles of Inclusivity, Materiality, Responsiveness
 and Impact.

Assurance Methodology

Our assurance activities included:

- Reviewing EGING PV management processes, practices and performance to assess its sustainability management system, which included corporate governance, and disclosures of key ESG-related performance.
- Interviews with management personnel at functional levels who are responsible for management of ESG-related performance, and information collection and reporting.
- Reviewing and inspecting ESG-related performance information and data, to test accuracy of
 information and data on a sample basis, by using analytical procedures.
- Reporting the assurance observations to management to provide an opportunity for corrective action prior to completion of the assurance process.



 Collecting and assessing documentary evidence and management representations that support adherence to the AccountAbility Principles.

Limitations

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EGING PV

TÜV Rheinland performed the assurance based on the scope of defined engagement agreement, and on a moderate level assurance under the AA1000AS for engagement. Information and performance data subject to assurance is limited to the contents of the Report.

Our assurance work did not cover financial report and other information not related to sustainability.

Conclusions

Based on our methodology and activities performed within the scope of this assurance, we can reach a conclusion that no instances or information came to our attention that would be to the contrary of the statement made as below:

- EGING PV ESG Report 2022 and its contents adhere to the AccountAbility Principles.
- ESG-related information and performance disclosed in the Report are assessed and they are supported by documentary evidence.
- TÜV Rheinland shall not bear any liability or responsibility to a third party for perception and decision on EGING PV based on this Assurance Statement.

Adherence to the AA1000 AccountAbility Principles

Inclusivity

EGING PV disclosed its key stakeholders in the Report, such as shareholders and investors, government and regulators, customer, suppliers and cooperative partners, communities, employees, and medias. In 2022, the Company conducted surveys to understand concerns and views from external stakeholders about ESG issues and took the survey results account into materiality analysis.

Materiality

EGING PV conducted materiality assessment and prioritized material topics in a matrix to reflect impacts on its business and its stakeholders. The Company disclosed most important issues such as opportunity in clean technology, product quality and safety, research innovation, corporate governance, employee health and safety, greenhouse gas (GHG) emissions, labor management, risk management, privacy and data protection, etc.. It is recommended that EGING PV should develop and measure targets and metrics associated with materiality topics.

Responsiveness

EGING PV communicated sustainability issues with stakeholders through a variety of communication channels, including conferences with shareholders, compliance inspection by local regulators, meetings with customers, supplier audits, and employee trainings, etc. It is recommended that EGING PV should develop sustainability strategy consistent with strategic documents and plans.

Impact

EGING PV has implemented a process to identify, evaluate and manage high risk areas in finance, compliance, and human resource management, etc. The Company also identified impacts on environment, occupational health and safety from its business activities. It is recommended that EGING PV should clearly set sustainability goals, and fully assess and manage impacts of environment, social

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and human rights in its business operations and supply chain.



Daniel Pan Corporate Sustainability Service Technical Manager

TÜV Rheinland (Shanghai) Co., Ltd. Shanghai, China, 23 August 2023



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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:

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

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

Multiple choice (please check)

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

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.egingpv.com/index.php

Open-ended questions:

1. What do you think of the report as a whole?



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