



2023
**Environmental,
Social and
Governance (ESG)
Report**



Long as the journey is, we will reach our destination if we stay the course; difficult as the task is, we will get the job done if we keep working at it.

Light up Spaces for a New Journey

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A Message from Chairman

If continuous innovation is the source of power for HY SOLAR's development, then duty and responsibility are the spiritual background of HY SOLAR's progress. After 22 years of ups and downs, in the context of green development becoming the mainstream of the times, HY SOLAR has long regarded ESG as the source of green and low-carbon competitiveness of enterprises.

Looking back on 2023, the world economic recovery has been full of difficulties and geopolitical turmoil, driving the global energy landscape to make profound adjustments. As a clean energy company, HY SOLAR deeply feels the mission and responsibility given by the times, and has always been firm in the original intention of "to make energy cleaner, to bring the world better", and contributing a steady stream of green energy to the accelerated arrival of a sustainable future with better photovoltaic products and solutions.

For HY SOLAR, 2023 is also a crucial year to achieve leaps and bounds. In the past year, we have made a brilliant debut with the new "HY SOLAR" brand, the N-type zero-carbon photovoltaic industry chain has opened up a closed loop, and the global service network has continued to grow, and the realization of every major progress is of milestone significance.

This year, HY SOLAR updated the organizational structure and management system of the EHS committee, actively carried out actions to respond to climate change, accelerated the implementation of carbon reduction plans and goals, and carried out environmental protection and carbon reduction through measures such as energy conservation and technological transformation, energy management, waste and harmful emission management. We continued to explore cutting-edge low-carbon technologies and improve the level of green manufacturing, and our wafer and module products have been certified by the French ECS carbon footprint, and our subsidiary Hongyuan New Material (Baotou) has been rated A+ in the 2023 green factory review and evaluation, ranking first gradient.

This year, HY SOLAR continued to focus on the innovation and breakthrough of photovoltaic core technology. By developing a first-class scientific research team, constructing highly specialised laboratories, and continuously expanding R&D investment, we have stimulated the potential of independent innovation, focused on technological upgrading and iteration, and pushed out new products to enrich the product matrix. We join hands with Zhejiang University, Southeast University and other well-known universities to explore co-operation in R&D and talent training, and accelerate the pace of innovation in the photovoltaic industry. With technology research and development as the core driving force, HY SOLAR strives to use high-performance photovoltaic products to bring more customers better clean energy solutions.

This year, HY SOLAR adhered to the principle of "common benefits and shared value", built a closer development community with stakeholders, and made greater contributions to the harmony and happiness of the society. Adhering to the people-oriented approach, we have created an equal and inclusive, safe and healthy working environment to help employees achieve their career development goals and personal values. Together with our partners, we will build a green industry chain ecosystem and promote the sustainable development of the photovoltaic industry. At the same time, we are firmly committed to public welfare, and have actively carried out community building, charity and other activities. In 2023, we were selected as a "Leading Private Enterprise in Jiangsu in Social Responsibility". We will continue to transmit the temperature of sunshine to the society and make unremitting efforts for a better world.

ESG report is not only a report presenting data and actions, but also our commitment and responsibility to sustainable development. We will adhere to the original essence of "Return the energy to its natural green color" and work hand in hand with our employees, customers and partners to create a better zero-carbon world and a better and sustainable future.

Chairman of HONGYUAN GREEN ENERGY CO., LTD.

Yang Jianliang

Lit up 2023

• Shared Bonuses



Operating income
CNY
11.859 billion

Total assets
CNY
29.382 billion

R&D investments
CNY
611 million

Social contribution value per share
CNY
2.39

Donation, poverty alleviation and rural revitalization investment
CNY
2.0237 million

• Diversity and Inclusiveness



Number of employees

10,804

Employee skills training coverage

100 %

Employee assessment coverage

100 %

Employee emergency preparedness training coverage

100 %

Number of university partners

6

Number of newly granted patents

68

• Low-carbon Operations and Environmental Protection



Coverage of environmental training for employees

100 %

Investments in environmental protection
CNY

289.68 million

Environmental protection goals achieved

100 %

Renewable rooftop photovoltaic electricity

1,084,837 kwh

Full range of silicon wafers and HT series modules passed

French ECS certification of carbon footprint

• Steady Development



Presence of independent directors on the board

43 %

Information and cybersecurity training coverage

100 %

Coverage of integrity training in Integrity training production bases

100 %

Achieved customer satisfaction goal for

3rd consecutive year

Penalties for tax violations

0

Milestones in 2023

May

Phase I of Hongyuan New Material (Xuzhou) put into operation a monocrystalline silicon slicing project, whose annual capacity reaches 50GW.



May

We held a press conference to release our new brand image, new strategy, and new products, once again becoming the focus of the photovoltaic industry.



January

HY SOLAR ranked 229th on the list of 2022 Hurun China Top 500.



May

Our full range of silicon wafers once again passed French ECS certification of carbon footprint, which demonstrates the rationality and effectiveness of our carbon management throughout silicon wafer manufacturing chain.



June

Phase II of Hongyuan New Material (Xuzhou) put into operation a high-efficiency TOPCon solar cell project with an annual capacity of 16GW.



August

The first phase of 50,000 tons of high-purity crystalline silicon project was successfully put into production, closing the whole industry chain of HY SOLAR N-type photovoltaic industry.



August

The first phase of 16GW TOPCon high-efficiency module project of Hongyuan Energy was completed and put into production.



July

HY SOLAR became a member of environmental nonprofit PV CYCLE, further enhancing end-of-life management of solar modules that have exceeded their useful life.



September

We released our first ESG report to fully respond to the concerns and demands of stakeholders.



October

HY SOLAR attended the Belt and Road CEO Conference at invitation.



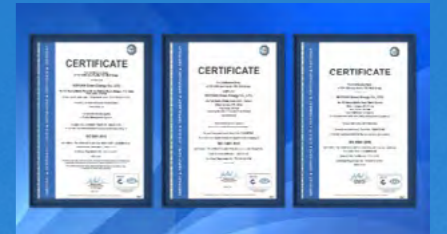
October

HY SOLAR's N-type TOPCon solar modules passed IEC61215:2021 / IEC 61730:2023 certification, which made HY SOLAR one of the first companies in the industry to obtain this certification.



December

HY SOLAR has obtained ISO three system certification again, and its comprehensive ability of high quality has attracted attention from the industry



November

HY SOLAR's N-type solar modules received the highest rating from pv magazine.



November

With excellent results throughout test cycle, Hongyuan New Material (Xuzhou)'s N-type TOPCon silicon wafers passed third-party certification based on IEC Standards for photovoltaic devices.



Reliable Products from Trustworthy Brand

"Empowering a zero-carbon future in the photovoltaic industry" describes both our self-revolution and our future-oriented thinking for organizational evolution and transformations. Driven by technological advances and more than two decades of experience in high-end manufacturing, HY SOLAR keeps optimizing product portfolios to cater to diverse scenarios.

We explore linkage among industrial bases, continuously gather cutting-edge technologies, and improve product management covering equipment manufacturing to renewable energy power stations, aiming to provide global users with more convenient and trustworthy products and services with higher value.



Dali, Yunnan Province

Mountain Photovoltaic Project

Large power station



Suzhou, Jiangsu Province

Distributed Photovoltaic Project

Industrial and commercial power station



Pakistan

Distributed Photovoltaic Project

Household rooftop power station



Italy

Distributed Photovoltaic Project

Residential rooftop photovoltaic



Scan the QR code to view our mountain photovoltaic project in Dali, Yunnan Province



Maoming, Guangdong Province

Agricultural Photovoltaic Project

Photovoltaic + Power station



Anshun, Guizhou Province

Mountain Photovoltaic Project

Large-scale power stations



Scan the QR code to view our industrial and commercial distributed photovoltaic project in Suzhou, Jiangsu Province

Understanding HY SOLAR

► Company Overview

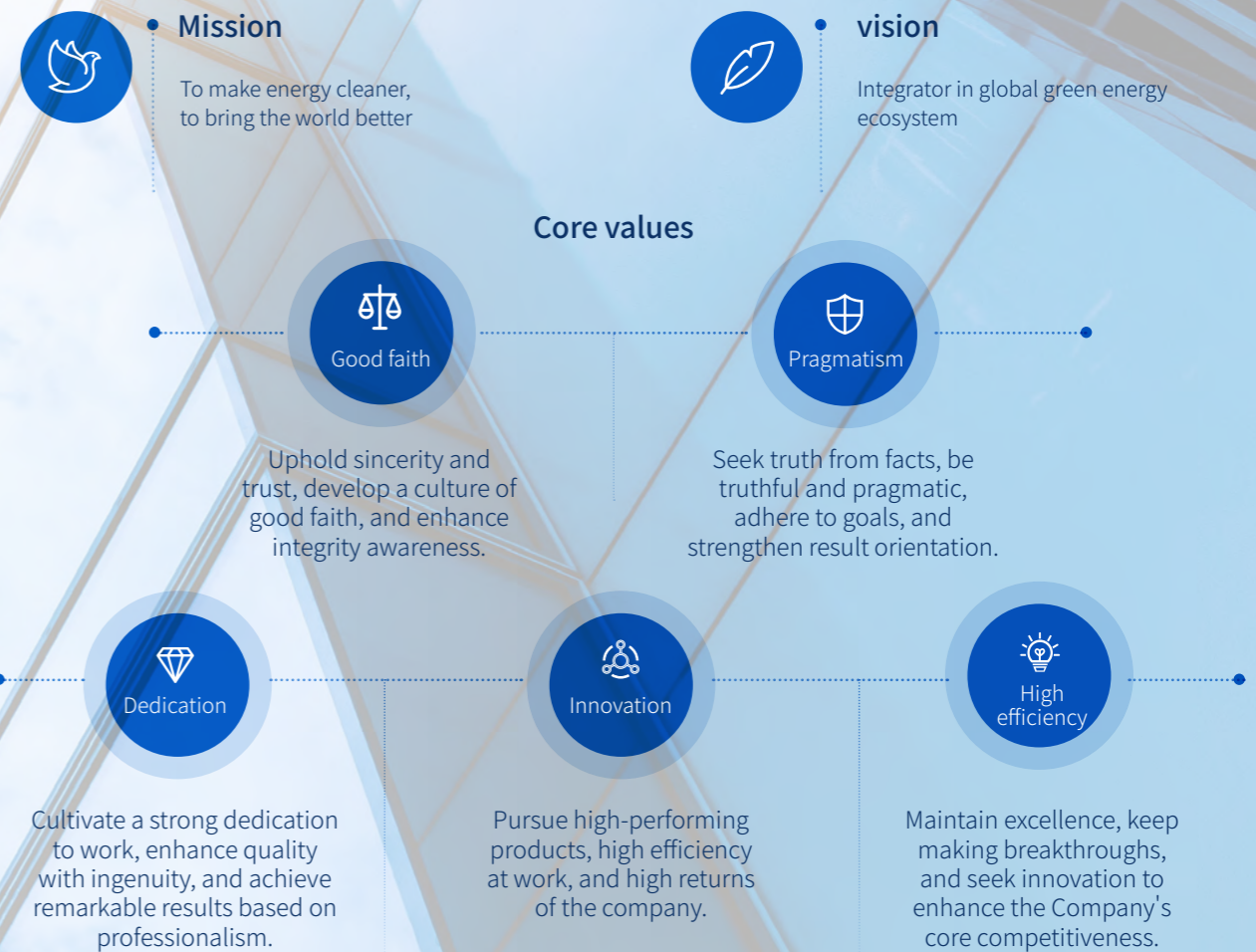
HY SOLAR (stock code: 603185), headquartered in Wuxi, Jiangsu Province, was established in 2002, and went public on the Shanghai Stock Exchange in 2018. We aim to become an integrator in global green energy ecosystem.

HY SOLAR actively practices and promotes global transition to green energy. Driven by scientific and technological research and development and deep vertical integration, we operate in six business sectors: high-end equipment manufacturing, industrial silicon and crystalline silicon, monocrystalline silicon wafers, N-type solar cells, N-type solar modules, and renewable energy power stations. We own advanced manufacturing bases in Wuxi of Jiangsu Province, Baotou of Inner Mongolia Autonomous Region, Xuzhou of Jiangsu Province, and Chuzhou of Anhui Province. The Company seeks to create an N-type photovoltaic ecosystem and to help the early realization of the Carbon Peak and Carbon Neutrality goal and the full popularization of green energy.

► Organizational Structure



► Corporate Culture



<p>6 industrial bases Jiangsu, Inner Mongolia, Anhui</p>	<p>Total assets CNY 29.382 billion</p>	<p>Operating income CNY 11.859 billion</p>
<p>Business sectors 6</p>	<p>Total profit CNY 695 million</p>	
<p>Net profit CNY 741 million</p>	<p>Global employees 10,804</p>	

*Statistics as of the end of 2023.


► HY SOLAR Six Manufacturing Bases

China • Inner Mongolia

Hongyuan Energy Technology (Baotou) Co., Ltd. (Industrial Silicon + Polysilicon)




Hongyuan New Material (Baotou) Co., Ltd. (Crystal Pulling + Slicing)




China • Jiangsu


HONGYUAN GREEN ENERGY CO., LTD. (Equipment)



Hongyuan New Material (Xuzhou) Co., Ltd. (Slicing + Battery)



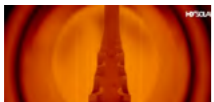




HY SOLAR Co., Ltd. (Module)



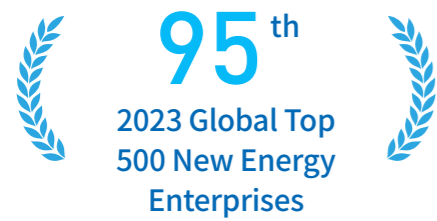
China • Anhui

Anhui Yuantai Photovoltaic Technology Co., Ltd. (Module)




China • Inner Mongolia		China • Jiangsu		China • Anhui
Hongyuan Energy	Hongyuan New Material (Baotou)	Hongyuan New Material (Xuzhou)	HY SOLAR (Wuxi)	YuanTech
80,000 tons High-purity industrial silicon capacity	35 GW Monocrystalline silicon wafer capacity	25 GW Slicing capacity	16 GW Module capacity	3 GW Solar module capacity
60,000 tons High-purity crystalline silicon capacity	25 GW Slicing capacity	16 GW Cell Capacity		
Modified Siemens process “YT high-temperature desulfurization, desulfurization and dust removal system”	SAP full process control and traceability system Full process quality control system			
				
N-type zero-carbon photovoltaic industry chain				

► Honors and Awards



HY SOLAR



2023 Jiangsu's Top 100 Manufacturers
Jiangsu Enterprise Federation



2023 Jiangsu's Top 200 Private Enterprises
Jiangsu Federation of Industry and Commerce



2023 Jiangsu's Top 100 Private Manufacturers
Jiangsu Federation of Industry and Commerce



2023 Jiangsu's CSR Leading Private Enterprise
Jiangsu Federation of Industry and Commerce

Hongyuan New Material (Baotou)



Inner Mongolia Autonomous Region Solar Grade High-efficiency Monocrystalline Silicon and Silicon Wafer Engineering Research Center
Baotou Development and Reform Commission

Hongyuan New Material (Xuzhou)



Solarbe Awards 2023 Most Influential Photovoltaic Raw Materials Enterprise
Solarbe Awards Organizing Committee

HY SOLAR (Wuxi)



Solarbe Awards 2023 Most Influential Photovoltaic Raw Materials Enterprise
Solarbe Awards Organizing Committee

► Associations Joined by Us

Entity	Association joined	Role in the association
HY SOLAR	PV CYCLE	Member
	China Photovoltaic Industry Association	Member
	China Machine Tool & Tool Builders' Association	Member
Hongyuan New Material (Baotou)	Baotou Association of Environmental Protection Industry	Member
	Baotou Association of Carbon Neutrality Industry	Member
	Silicon Industry Branch, China Nonferrous Metals Industry Association	Member
	Materials Sub-Technical Committee, National Semiconductor Equipment and Materials Standardization Technical Committee	Director
	Low-carbon Industry Branch, Baotou Association of Environmental Protection Industry	Member
Hongyuan Semic	China Advanced Semiconductor Industry Innovation Alliance	Member

► Systems Building

All our main manufacturing and operations locations have passed quality management system certification, with a 100% coverage.

	ISO 9001: 2015 Quality Management System	ISO 14001: 2015 Environmental Management System	ISO 45001: 2018 Occupational Health and Safety Management System	ISO 50001: 2018 Energy Management System
HY SOLAR	✓	✓	✓	
Hongyuan New Material (Baotou)	✓	✓	✓	✓
Hongyuan New Material (Xuzhou)	✓	✓	✓	
Hongyuan Energy	✓	✓	✓	
Hongyuan Semic	✓			
HY SOLAR (Wuxi)	✓			
YuanTech	✓	✓	✓	

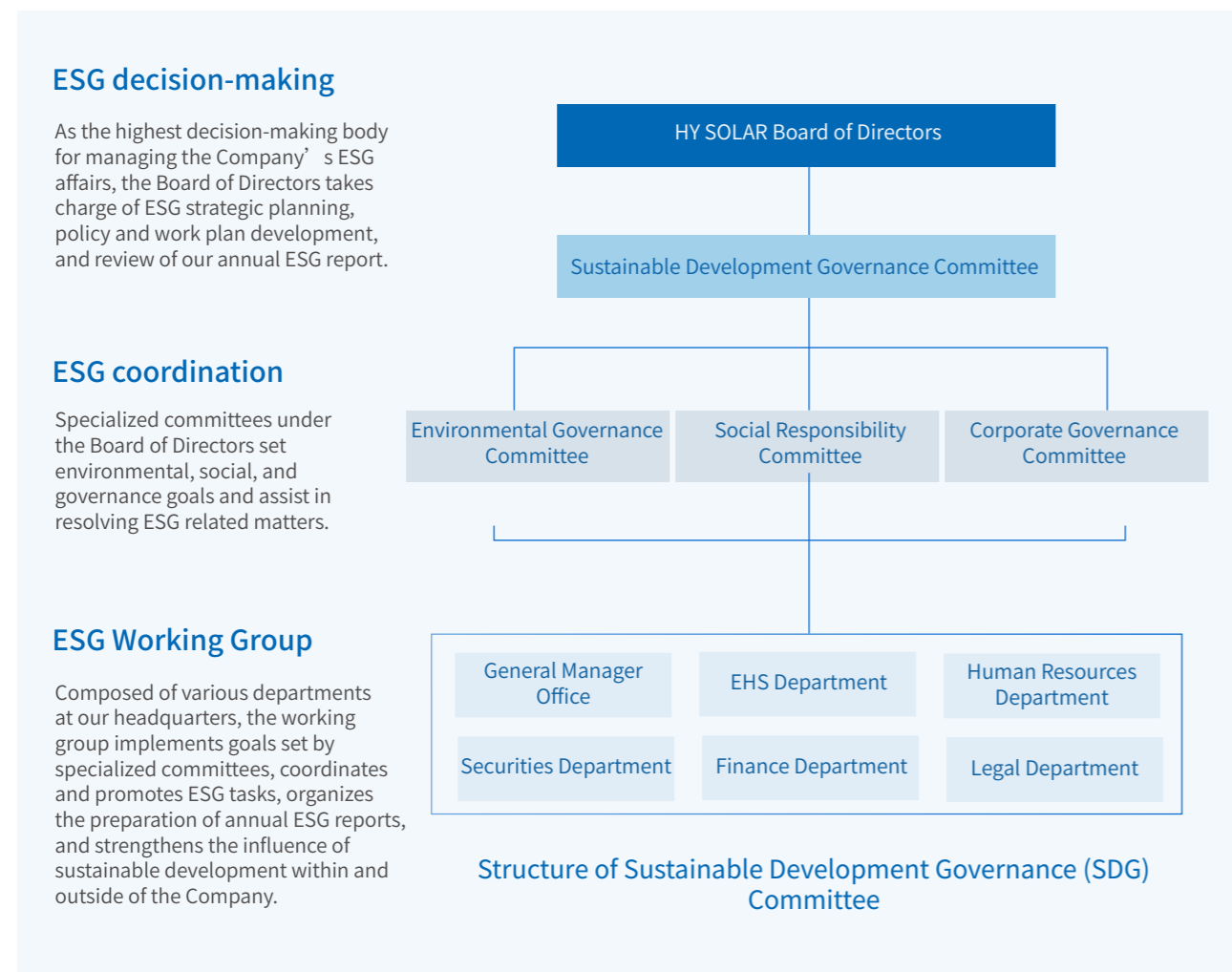
Embracing Sustainable Development Through Diversity

While seeking survival and growth as a company, we actively transform risks encountered in sustainability practices into opportunities, and proactively respond to a business environment driven by sustainable development.

Sustainability Management Framework

In 2023, we established Sustainable Development Governance (SDG) Committee composed of senior and mid-level managers from departments such as EHS, Human Resources, Procurement, Legal, and Securities. The committee is chaired by a board member.

The SDG Committee operates under the supervision of the Board of Directors. It assesses the management of sustainable development issues, conducts internal democratic consultations from time to time, and addresses key areas that hinder sustainable development, aiming to overcome bottlenecks and deepen our management practices.



Stakeholder Engagement

We consider individuals and groups whose interests are or may be affected by our decisions or activities as stakeholders. We offer open and transparent channels to facilitate dialogue with stakeholders, providing them with opportunities to share their opinions and experiences with us. This helps us understand their expectations and demands, and supports our decision-making and analysis for sustainable development.

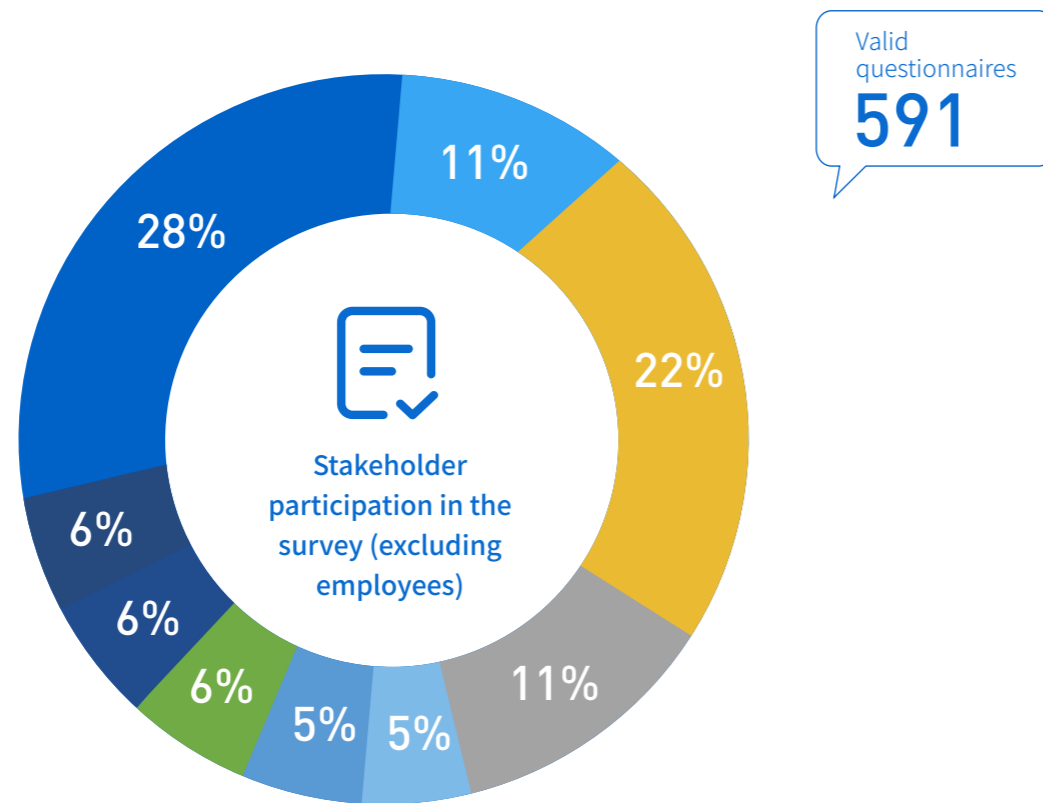
In 2023, we identified our main stakeholders and their possible concerns by referring to the GRI Standards 2021 and AA1000 SES, as listed below:

Stakeholders	Channels of engagement	Topics of concern
<p>Employees (including labor union)</p>	Employee activities, worker' congresses, training Employee handbook Voice of Employees Internal mails Office automation system Bulletin board	Employees diversity and inclusion Human capital development Occupational health and safety Waste and hazardous substances management Information security and privacy protection
<p>Shareholders and other investors</p>	Information disclosure General Meeting of Shareholders Online and offline communication (investment exchange meetings, performance briefings, SSE (Shanghai Stock Exchange) E-interactive, investor email, hotline) Media	Corporate governance Risk management Business ethics Investor relations Information security and privacy protection
<p>Clients and consumers</p>	Offline exhibitions and conferences Customer satisfaction surveys	Product quality and safety Technological innovation Customer relationship management Information security and privacy protection Product lifecycle management
<p>Business partners</p>	Regular training for suppliers Exchanges and visits Supplier verification audits Supervise channel feedback	Sustainable supply chain Technological innovation
<p>Government and regulatory agencies</p>	Regulatory meetings On-site inspections Information disclosure	Corporate governance Environmental compliance management Energy management Water resources management Climate actions
<p>Non-governmental organizations</p>	Offline exhibitions and conferences Seminars Media HY SOLAR's publications Press releases	Product lifecycle management Clean technology opportunities Climate actions
<p>Local communities (including residents)</p>	Corporate visits Community volunteer activities Charitable activities	Community relations and charity Environmental compliance management Water resources management Ecological impact Biodiversity conservation

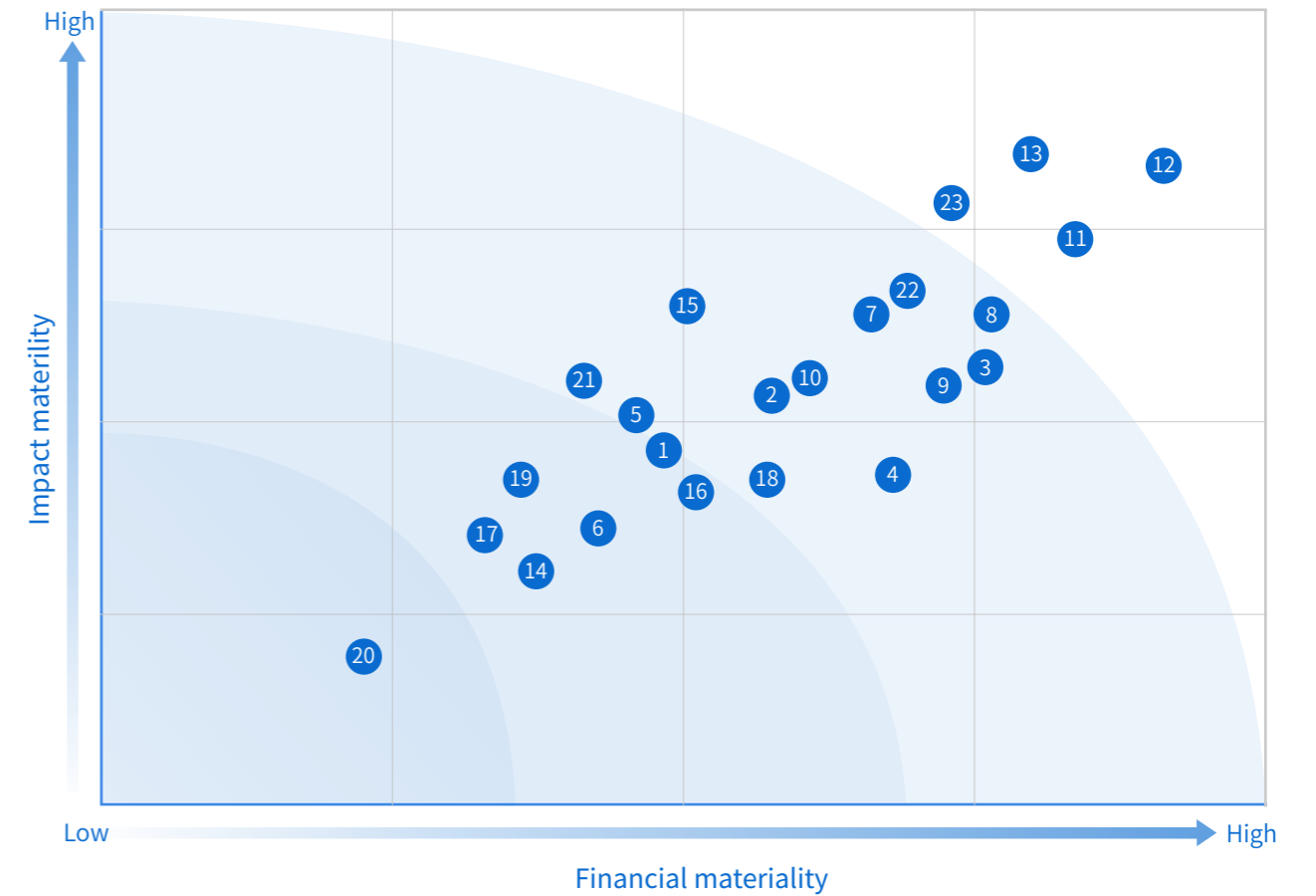
Materiality Assessment

Every year, we conduct materiality assessments with internal and external stakeholders to prioritize material ESG issues. Based on annual stakeholder surveys, we have identified 23 material issues. Taking into account market trends, benchmarking with peers, rating indicators, and after seeking expert opinions, we developed a matrix of material ESG issues for us.

Compared with 2022, we added new issues including "conflict minerals management", "ecological impact", "biodiversity conservation", "product lifecycle management", and "clean technology opportunities", and incorporated "green and low-carbon product" into "product lifecycle management".



- Business partners
- Non-governmental organizations
- Labor union
- Consumers
- Shareholders and other investors
- Vulnerable groups
- Local communities
- Suppliers
- Other



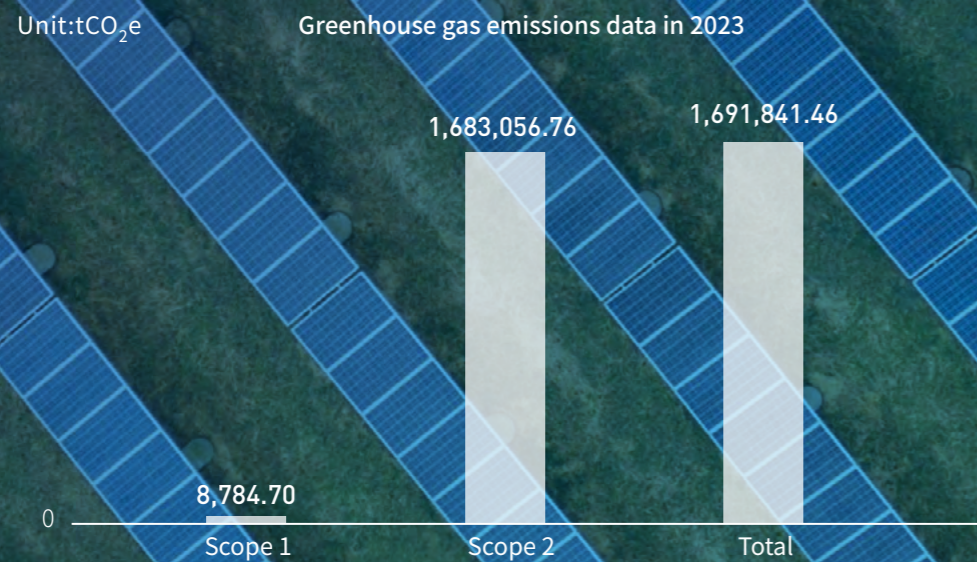
- | High | Medium | Low |
|---|---|------------------------------------|
| 12 Human capital development | 5 Customer relationship management | 14 Community relations and charity |
| 13 Occupational health and safety | 2 Risk management | 17 Water resources management |
| 11 Employee employment, diversity and inclusion | 15 Environmental compliance management | 19 Ecological impact |
| 8 Product quality and safety | 18 Waste and hazardous substances management | 20 Biodiversity conservation |
| 9 Sustainable supply chain | 16 Energy management | |
| 7 Technological innovation | 4 Information security and privacy protection | |
| 10 Conflict minerals management | 1 Corporate governance | |
| 22 Clean technology opportunities | 6 Investor relations | |
| 3 Business ethics | 21 Product lifecycle management | |
| 23 Climate actions | | |

Focus

Low-Carbon Development Focusing on Green Mission

Climate Actions

We deeply recognize the impact of climate change on our sustainable development. With a corporate mission of "to make energy cleaner, to bring the world better" and a vision to "contribute to China's dual carbon goals and energy revolution", we actively respond to climate risks and challenges. We deeply layout the whole industry chain of photovoltaic chain to promote high-quality development of the industry and contribute to China's dual carbon goals.



Note: The greenhouse gas inventory data in 2023 includes 8 production sites: HY SOLAR, Hongyuan New Material (Baotou), Hongyuan Energy, Hongyuan New Material (Xuzhou), Hongyuan SEMIC, HY SOLAR (Wuxi), Shanghai YuanTech, YuanTech. Six more production sites than in 2022.



Climate Actions

Guided by the *Task Force on Climate-related Financial Disclosures (TCFD)*, we focus on governance, strategy, risk management, metrics and targets. Based on sustainable development management system, we have developed a climate change governance framework to drive climate change governance from the top down and enhance our climate governance capabilities and information disclosure. In terms of risk management, Hongyuan New Material (Baotou) has identified the transformation risks and entity risks brought about by climate change, and developed appropriate countermeasures, which provides a favorable reference for the company's future strategic and financial planning.

Governance

The Board of Directors, as the Company's highest decision-making body for managing ESG affairs, guides the SDG Committee in formulating and improving climate-related strategies. It also oversees and reviews the Company's climate actions.

The SDG Committee reviews and supports climate risk management policies, annual financial planning related to climate change, climate-related metrics and targets, and their progress. It tracks and supervises the progress of climate efforts and reports risk mitigation strategies to the Board of Directors.

Functional departments implement climate change governance into their everyday work.

Strategies

Integrate the identification and management of climate-related risks and opportunities into the company's operational strategy.

Evaluate the actual and potential impacts of climate change on a company's business, strategy, and financial planning.

Deliver green products and services, practice green manufacturing, and build a green ecosystem.

Risk management

Establish processes for identifying, assessing, and managing climate-related risks.

Conduct climate risk identification and analysis.

Develop risk mitigation and adaptation measures based on analysis results.

Integrate climate change risk management into our overall risk management processes.

● Metrics and targets

Regularly disclose energy, water resources, and waste-related data.

Regularly disclose greenhouse gas emissions management measures and quantified data.

Evaluate our progress towards emissions reduction targets.

GHG Emissions Management

Our greenhouse gas emissions within our operational boundary mainly come from electricity consumption. In response to climate change and the need to reduce GHG emissions, we have advanced energy-saving technological improvements to reduce energy consumption. We also conducted a GHG inventory to assess our GHG emissions across the manufacturing and operational processes of our subsidiaries. By comparing and analyzing the data, we identify new measures and opportunities for carbon reduction to address climate-related risks. In 2023, our total greenhouse gas emissions (Scope 1 and Scope 2) amounted to 1,691,841.46 tCO₂e.

Greenhouse gas emissions data in 2023

Indicator	Unit	2023
Scope 1: Direct greenhouse gas emissions	tCO ₂ e	8,784.70
Scope 2: Indirect greenhouse gas emissions from energy consumption	tCO ₂ e	1,683,056.76
Total greenhouse gas emissions	tCO ₂ e	1,691,841.46

Note: The greenhouse gas inventory data in 2023 includes 8 production sites: HY SOLAR, Hongyuan New Material (Baotou), Hongyuan Energy, Hongyuan New Material (Xuzhou), Hongyuan Semic, HY SOLAR (Wuxi), Shanghai Yuantai, YuanTech. Six more production sites than in 2022.

Clean Energy Opportunities

The global demand for renewable energy continues to increase, and the solar industry embraces significant opportunities in promoting the adoption of clean energy. HY SOLAR incorporates factors influencing clean energy into the design, construction, and operation processes of solar projects to reduce greenhouse gas emissions and boost global energy transition.

Upholding the mission “to make energy cleaner, to make the world better”, we concentrate on clean energy sector and provide technical solutions for clean energy in various industries. We actively promote the construction of renewable energy power stations both domestically and internationally, through practical actions, we contribute to dual carbon goals.

Installed rooftop solar panels

While providing more efficient, abundant, and safe clean energy products to global customers, we actively promote the use of renewable energy in our manufacturing processes. During the reporting period, we installed solar panels on unused roof in our headquarters in Wuxi. In 2023, we generated 1,084,837 kWh of electricity from rooftop solar panels, of which 753,812 kWh was consumed by us. It is expected that over the 25-year lifespan of this project, 24 million kWh electricity will be generated in total, resulting in a reduction of approximately 13,687.20 metric tons of carbon emissions.



Enhanced cooperation in the energy industry

As an integrator in global green energy ecosystem, we continued efforts in building a global service network. We closely aligned with China’s dual carbon strategic goals and actively expanded cooperation in clean energy, green certificate trading, new energy equipment and more. Through in-depth multilateral cooperation, we jointly promote low-carbon, green, and clean development through industrial transformation and upgrading.



○ Signing of a strategic cooperation agreement

Product Lifecycle Management

We incorporate green and low-carbon principles into the whole industrial chain which covers entire product lifecycle from raw materials collection, design, manufacturing, transportation, use, disposal, to recycling. This ensures that our products have green and low-carbon advantages. During the reporting period, our silicon wafers obtained French ECS certification of carbon footprint. We replaced fuel forklifts with electric ones in our factories, recovered silicon sludge from cutting fluids, and improved logistics by shifting from road transport to a combination of road and rail transport. We also collaborated with upstream and downstream suppliers to develop processes for material circulation and recycling.

During the reporting period, HY SOLAR and Hongyuan New Material (Baotou) used 589,251 tons of renewable materials in the manufacturing and packaging of products and services. Hongyuan New Material (Baotou) recycled a total of 17,598 sets of composite packaging materials for silicon rods, and purified and reused 829.99 tons of crucible bottom materials.

In 2023, Hongyuan New Material (Baotou) recovered a total of combined packages of silicon rods

17,598 sets

Purification and reuse of crucible base material

829.99 tons

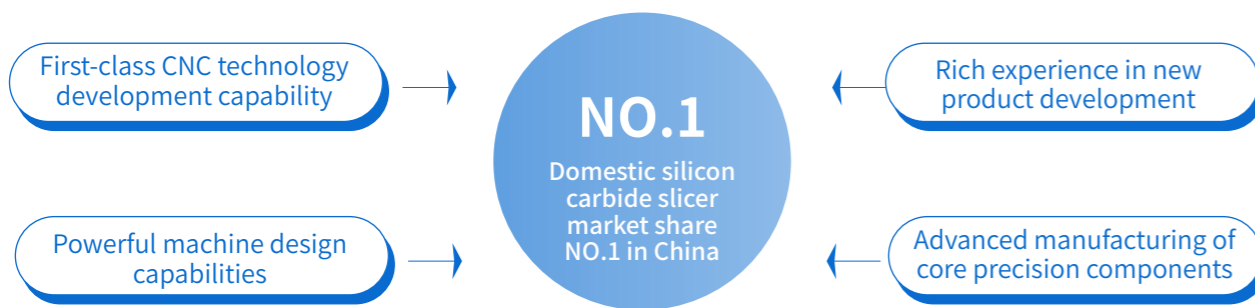
Management Processes

▶ Raw material procurement

Execute *Incoming Inspection Control Procedures*. Incoming Quality Control (IQC) Department inspects, identifies, labels, and records raw materials, and notifies relevant departments, such as procurement and SQE, of any non-conforming or defective materials.

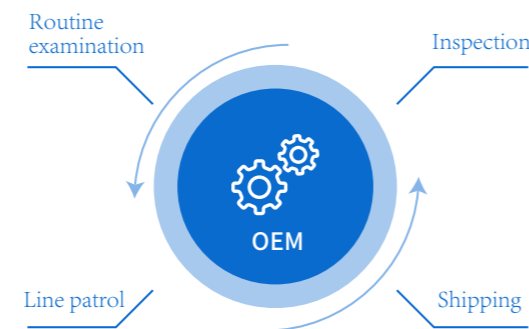
▶ Design

Supported by our rich experience in new product development, advanced core component manufacturing capabilities, cutting-edge CNC technology development capabilities, and strong overall design capabilities, we provide strong support for product design.



▶ Production and quality inspection

Qualified third-party testing organizations are invited to conduct test product compliance and identify problems, then we make timely adjustments to manufacturing process based on inspection reports, and deliver quality products that meet market and customer requirements.



▶ Transport

Use recyclable packaging materials to avoid adverse environmental impacts during material and product transport.

▶ Recycling and disposal

Further recycle reusable materials and properly dispose of non-reusable materials.

Practiced Green Manufacturing

We adhere to green manufacturing, and incorporate green and low-carbon principles into every step of our manufacturing. When manufacturing industrial silicon, we prioritize the use of advanced machinery and equipment, and adopt advanced Siemens process to reduce labor costs, improve manufacturing efficiency, and ensure product quality. Additionally, we take energy-saving and emission reduction measures in process optimization, electrical systems, construction, water supply and drainage, and production management. This has resulted in zero emissions of waste gas, wastewater, and waste residue during manufacturing, making it more scientific and environmentally friendly.



In August 2023, Hongyuan Energy's Phase I high-purity polysilicon project with an annual capacity of 50,000 tons was put into operation.

Building a Green Factory

Hongyuan New Material (Baotou) adheres to green production and implements green factory management, and is selected in the national Green Factory list in 2021. Hongyuan New Material (Baotou) refers to the requirements of green factory management, continuous innovation and practice in management and technology, and effectively lead the green manufacturing benchmark. In the review assessment of the green Factory in 2023, Hongyuan New Material (Baotou) was rated as A+, that is, ranked in the first gradient.



Built a Green Rcosystem

We take a range of actions to build a green ecosystem from raw materials and manufacturing process to end applications, and continuously accelerate our carbon-neutral efforts. Up to now, the entire range of silicon wafers and HT 182 TOPCon modules produced by HY SOLAR have passed the French ECS (Evaluation Carbone Simplifiée) carbon footprint certification, and the silicon wafers and PV modules have been subjected to a rigorous cradle-to-gate assessment of product life cycle carbon emissions. The products of silicon wafers and photovoltaic modules underwent a strict "cradle-to-gate" carbon emission assessment of the product life cycle, and the results of the certification are outstanding, with a significant low-carbon advantage in the industry, which is a strong proof that Hiroshima Green Energy continues to practice low-carbon development and promotes the construction of an environmentally friendly value chain, and further assists Hiroshima Green Energy's products in entering the overseas market.



Increased Recycling and Reuse

HY SOLAR actively practices recycling and reuse. In 2023, we became a member of PV CYCLE, and began to provide recycling and reuse services to customers who purchase our solar modules. By doing to, we strive to minimize ecological impacts and maximize renewable rates.

After completing their mission, our solar modules (sold within membership period) will be collected and recycled by PV CYCLE. This promotes circular reuse, reduces the need for primary resource extraction, and effectively lowers impact on the environment. It further optimizes the green and energy-saving characteristics of our solar modules, bridges the "last mile" of our green photovoltaic industry chain, supports the "ultimate low-carbon" lifecycle of our solar modules, and contributes to a green and pollution-free photovoltaic industry from start to end.



Feature

Leading the Way in Smart Manufacturing for More Accessible Clean Energy

Aiming for Smart Photovoltaics

Amid the booming Fourth Industrial Revolution, HY SOLAR has taken the lead in seizing the industry's opportunities by creating manufacturing bases that integrate smart manufacturing and R&D. We have successfully achieved a vertical extension of the entire industry ecosystem that covers six major stages, including equipment manufacturing, silicon material, silicon wafer, cell, module, and power station. With our strategic deployment making significant progress, we have demonstrated a deeply integrated and highly efficient collaborative multi-industry system. This allows our advanced manufacturing capacities to be released in an orderly manner, which reflects not only our autonomy and reliability in managing supply security and manufacturing efficiency, but also the promising acceleration of our transformation.



Leading the industry with smart manufacturing

A nation's pivotal industries are the lifeblood of its people. The photovoltaic industry is characterized by strong technological intensity, and HY SOLAR has taken advantage of this by developing the full gamut of products and technologies while pursuing lean production. We have developed our own MES system, integrated SAP system, and WMS system to achieve lean manufacturing control and business-finance integration. This fully promotes information sharing throughout our upstream and downstream industries, helping us reduce operational risks and leverage the potential of smart manufacturing to enhance manufacturing efficiency and quality.



◦ Digital production manufacturing MES system developed by us

Our manufacturing base in Xuzhou has been equipped with an automated production and full-process quality control system compatible with both 182mm and 210mm ultra-large solar cells. The system possesses high adaptability and versatility. We have incorporated industry-leading TOPCon passivation contact technology and AI smart detection into an advanced smart integration system tailored for photovoltaic module manufacturing. This system automatically identifies risks, enables visual production monitoring, prevents mistakes, and effectively reduces human errors, greatly ensuring manufacturing efficiency and product quality of all independent and interconnected modules, from material loading to packaging. It also helps the production department track and analyze production data in real-time for optimized equipment and process and reduced defect rates. In the meanwhile, our other manufacturing bases are also advancing digital transformation and improving real-time analysis and detection systems.



On a single production line, an average of **2,000** silicon wafers can be packaged and boxed every **15** minutes.

◦ Our automatic sorting and production line of monocrystalline silicon wafers

Cell yield improved by

0.3 %

Flexible

Photovoltaic module manufacturing processes more than

30

Compatible

Stable

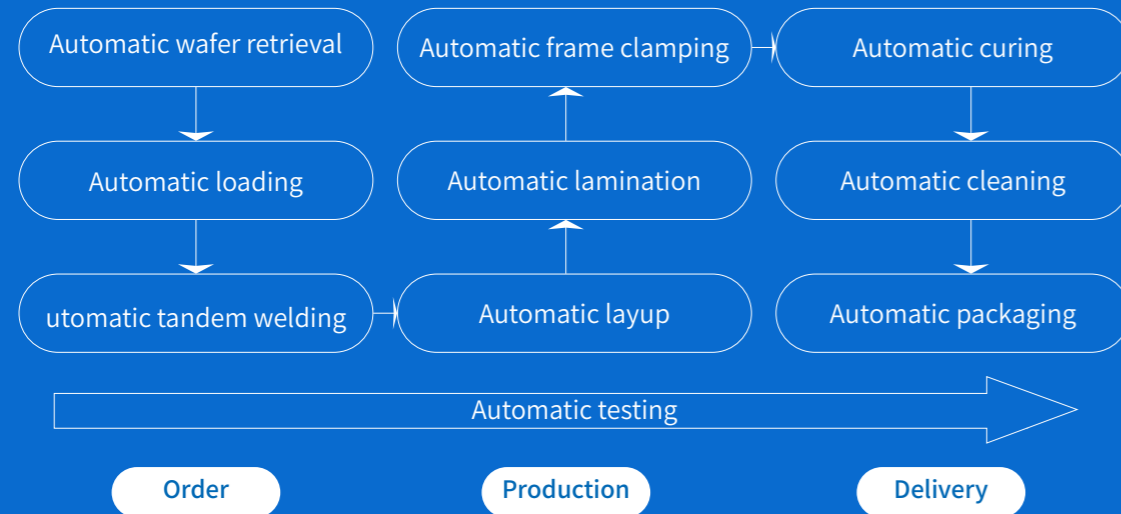
Automation coverage of module production process

100 %

Efficient

Collaborative

Intelligent
Integrated MES, SAP, and WMS systems



Enabled precise traceability with "digital passports" for photovoltaic modules

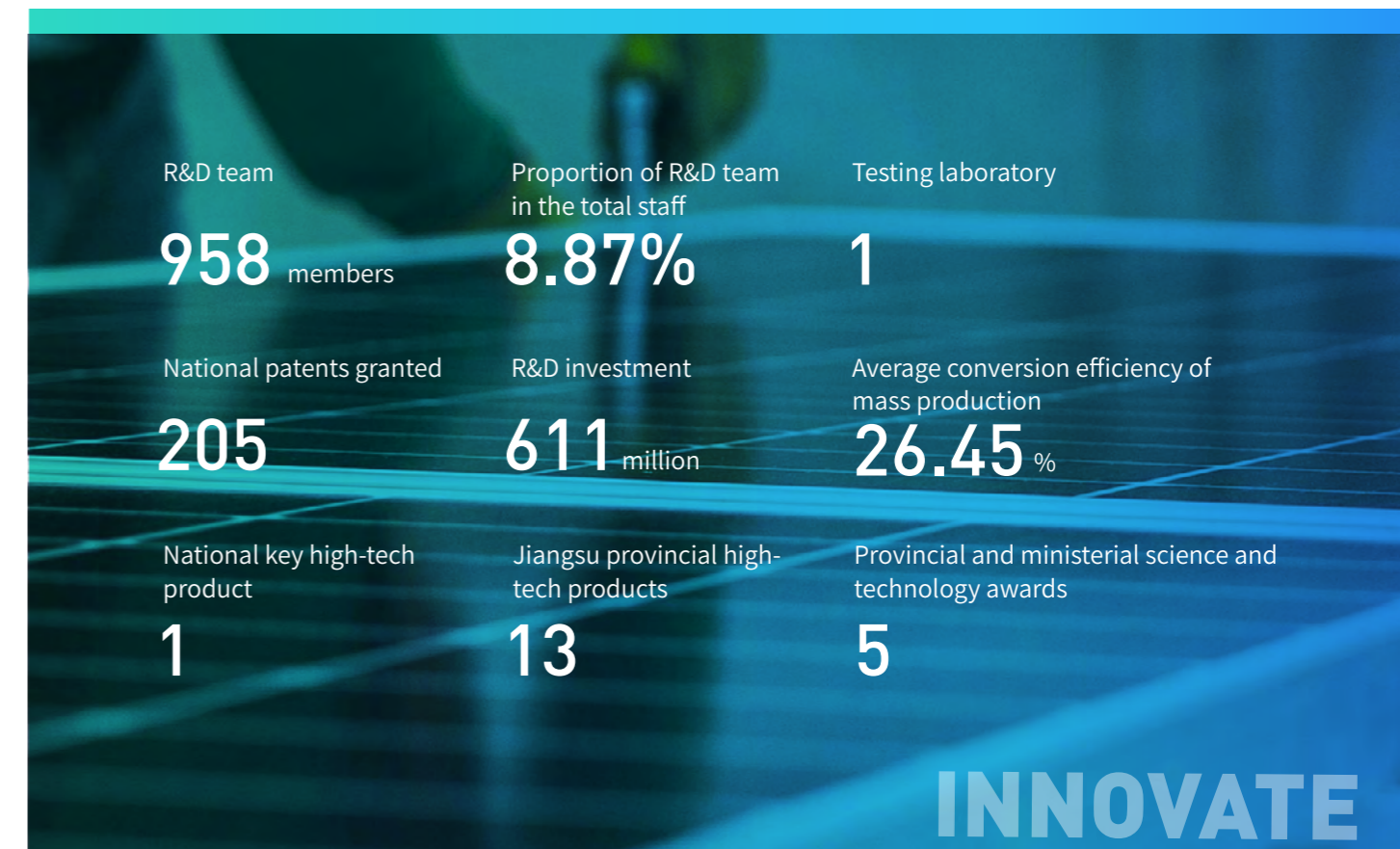
By embedding tags in photovoltaic modules, we have created "digital passports" for photovoltaic modules, enhancing the management of their lifecycle data. Customers can type in the serial number on [our website](#) or scan the nameplate with a mobile phone to use our online "Modules Authenticity Services" and obtain key information about the module. The platform is available in both Chinese and English.

Data has been entered for all of our company's photovoltaic modules, and customers can verify each module product via the "digital passports". All module products are equipped with our own solar cells, enabling integrated traceability throughout the entire supply chain starting from silicon materials produced by us.



Innovation empowers interconnected premium photovoltaics

A higher photovoltaic conversion rate and a wider range of power generation applications have always been our unchanged research and development goals. Through the creation of research and development teams, laboratory upgrades, collaborative research and development, and increased research and development investment, we have unleashed our potential for independent innovation, sought technological upgrades and iterations, and developed new products. In 2023, we obtained 68 new authorized patents.



HY SOLAR has established a highly specialized product laboratory at its production base to provide technical support for the development and testing of solar photovoltaic products within the organization. The laboratory covers an area of over 3,000 square meters and is equipped with more than 60 sets of equipment, including electrical performance testing instruments, which fully comply with the ISO 17025 *General Requirements for The Competence of Testing and Calibration Laboratories*. It meets the requirements of the national CNAS-accredited laboratory and has testing capabilities that comply with the complete set of IEC 61215 and IEC 61730 standards, in addition to fire testing. The laboratory incorporates an information management system (LIME) to ensure work efficiency and data integrity.

We partner with universities and organizations for research and development and talent training, such as Zhejiang University, Southeast University, and Nanjing Institute of Technology to accelerate innovation in the photovoltaic industry.

Expanding cooperation for win-win situations

In April 2023, Hongyuan New Material (Baotou) officially launched Hongyuan New Material (Baotou) Future Research Institute in Qingshan District, Baotou. The project has a total investment of CNY100.6 million, focusing on solar photovoltaic invention and application innovation. In October of the same year, Hongyuan New Material (Baotou) Research Center for Solar-grade High-efficiency Monocrystalline Silicon and Silicon Wafer Engineering, under the Future Research Institute, was recognized as Inner Mongolia Autonomous Region Engineering Research Center. Both the research institute and research center are led by Hongyuan New Material (Baotou) and have established strategic partnerships with prestigious universities and research institutions such as Zhejiang University.

Some of our collaborative development projects

Development of magnetic field-free large-diameter (≥12") semiconductor monocrystalline silicon project

Hongyuan New Material (Baotou) partners with Zhejiang University's State Key Laboratory of Silicon and Advanced Semiconductor Materials to develop large chips.

Development and industrialization project of semiconductor silicon carbide slicing machines

HY SOLAR partners with Southeast University to promote domestic production of high-end silicon carbide devices.

Comprehensive Quality Management

Product quality is the foundation of our enterprise. By establishing a smart manufacturing base for photovoltaics, we have not only strengthened our manufacturing capabilities but also raised higher quality requirements for production. Overcoming the limitations that hinder quality improvement has been a crucial driving force for HY SOLAR's continuous achievement of scale, refinement, and mass production along its industrial chain.



scale



refinement

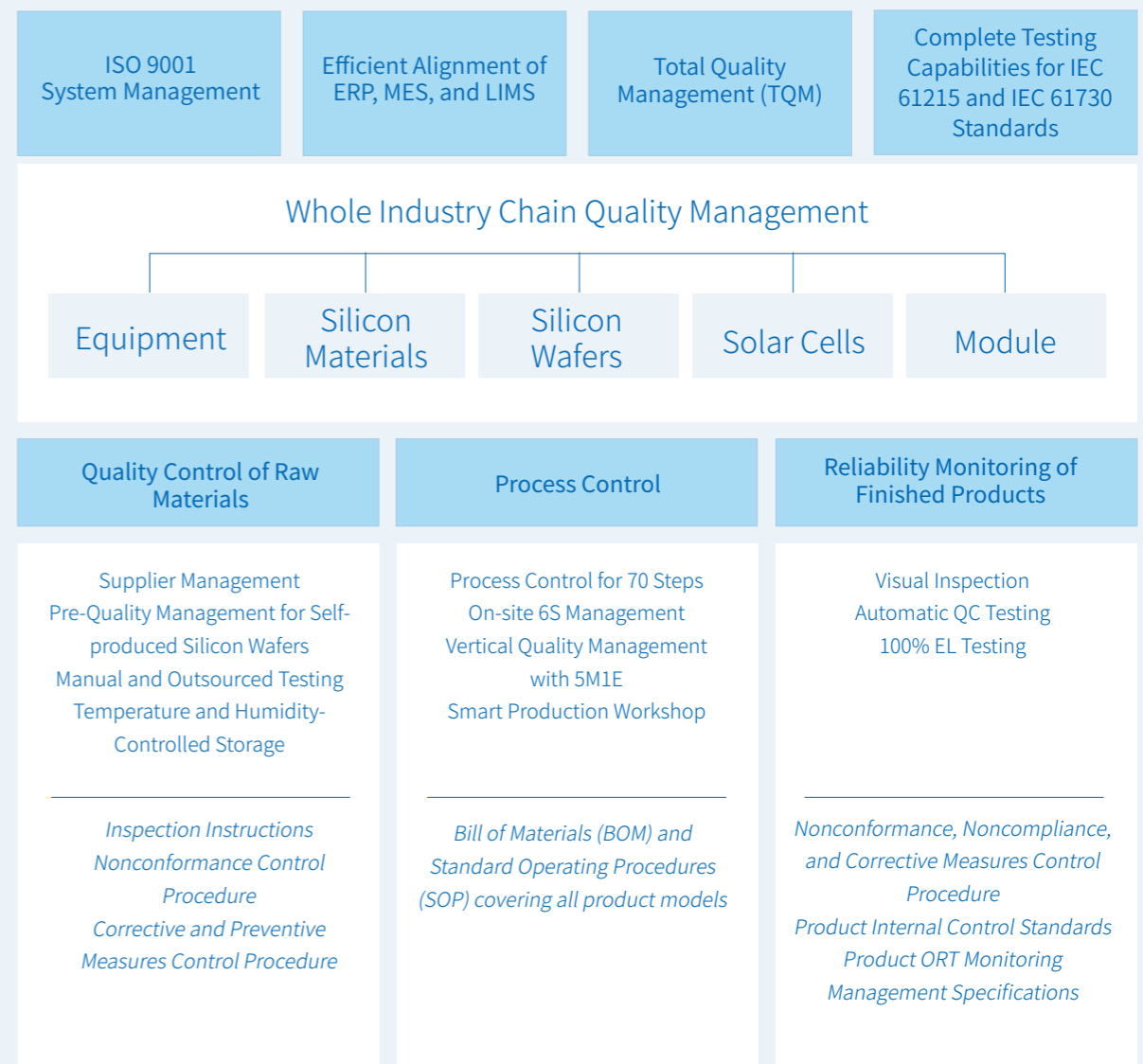


mass production

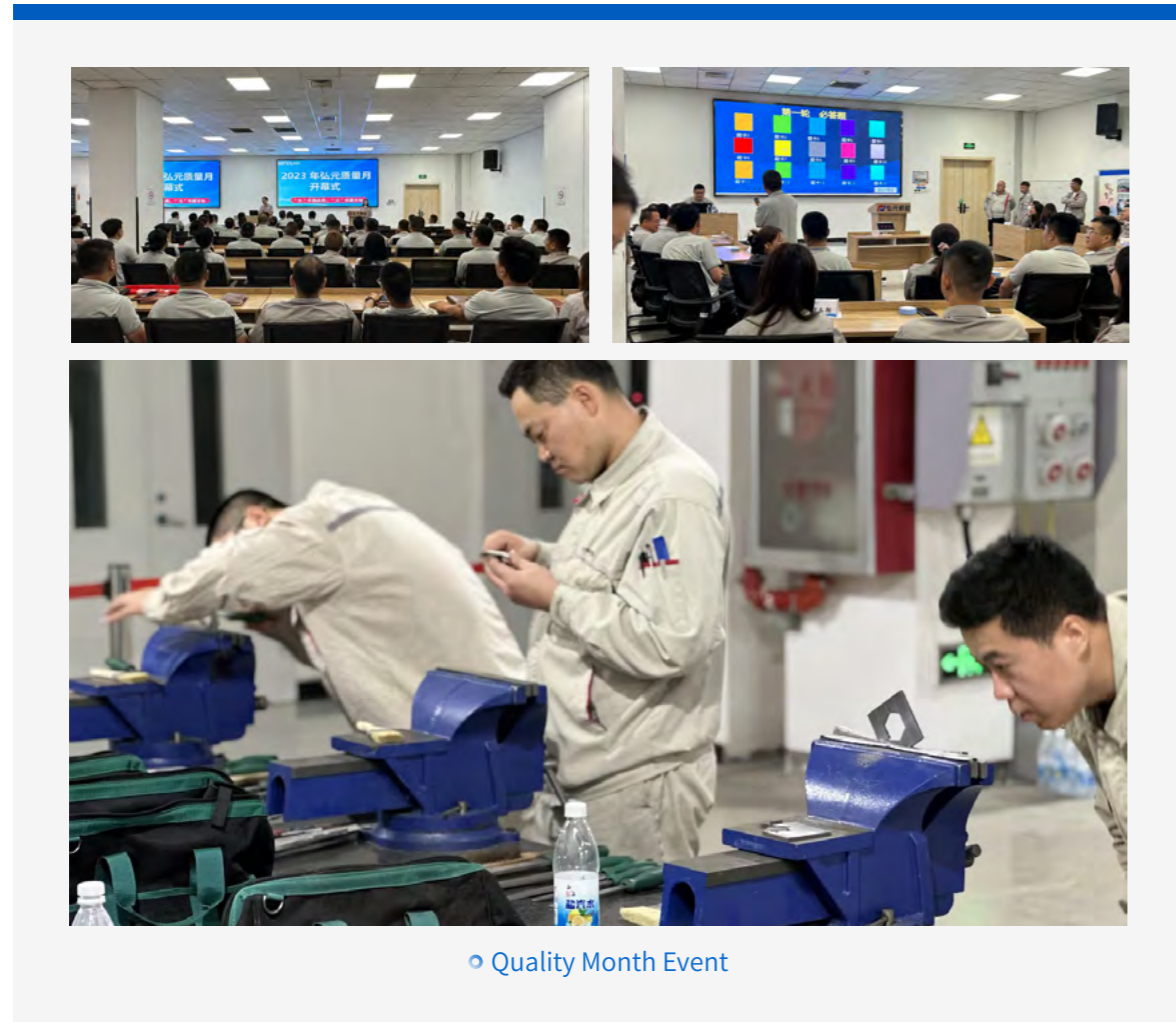
From HY Products to HY Quality

Reliable products stem from comprehensive quality management. We adhere to the principles of "excellent quality, leading brand, continuous improvement, and customer-centricity". We implement end-to-end quality management, establish a quality management system in accordance with ISO 9001, conduct regular inspections and quality monitoring of our production processes, hold regular quality diagnosis meetings, involve all departments in the improvement of quality at the production base, consolidate the achievements of quality management, and achieve quality goals for process optimization and product yield.

Comprehensive Lifecycle Quality Management



We provide quality management training for employees during onboarding and throughout their job roles, standardizing quality control requirements from design and development, raw material procurement, storage and transportation, equipment operation, inspection and testing, to the disposal of nonconforming products. We collaborate with research and development, procurement, and manufacturing to collect market analysis and customer feedback, and implement quality improvement projects. The production base regularly organizes "Quality Month" events to enhance the sense of responsibility among personnel, foster a culture of "producing high-quality products with honor", and improve the quality awareness and technical skills of all employees.



In 2023, HY SOLAR's self-produced N-type TOPCon solar cells in Xuzhou successfully passed various technical specification tests based on the IEC 61215/IEC 61730 photovoltaic module standards conducted by third-party testing organizations such as Germany's TÜV Rheinland and PV Magazine Module Test. In rigorous testing by multiple authoritative organizations, HY SOLAR's products demonstrated outstanding reliability in high-temperature resistance and light-induced degradation.



Environment Friendliness for a Circular Economy

RESPONSE:

- Supporting national "dual-carbon" strategic objectives
- Improving energy efficiency and reducing emissions
- Respect for nature and conservation of biodiversity

ACTION:

- Multi-Measures and Structures for Green Operations
- Enhancing resource intensification and recycling
- Enhanced resource intensification and recycling

Objectives	2023	ACHIEVEMENT
No environmental pollution incidents	Completed	
No environmental public opinion of level 2 (yellow) or higher	Completed	
Investment in environmental protection	CNY 289.68 million	
Reducing environmental impacts	NOx emissions reduced by 4.6%	
Water conservation	33.31 tons	

Environmental Compliance	P41
Energy Management	P42
Water Resource Management	P43
Waste and Hazardous Emissions Management	P44
Ecological Conservation	P48



Environmental Compliance

As a global green industry ecosystem integrator, HY SOLAR constantly pays attention to the development trends of global environmental management concepts, policies, and strategies. We recognize the importance of environmental management for the sustainable development of the Company and attach great importance to the environmental impact of our production and operations processes. We strictly comply with the relevant laws and regulations of the People's Republic of China, such as the Environmental Protection Law, Law on the Prevention and Control of Water Pollution, and Law on the Prevention and Control of Air Pollution. Based on the ISO 14001 environmental management system, we continuously improve our environmental management system and organizational structure, refine implementation guidelines, and strive to minimize the environmental impact of our production and operations.

We have formulated the environmental protection work implementation plan for the year 2023, with the goal of addressing the root causes and improving environmental quality to ensure the implementation of environmental protection responsibilities. In accordance with the requirements of relevant laws and regulations on emergency response plans for environmental incidents, we have assessed environmental risk factors based on our company's situation and developed emergency response plans for sudden environmental incidents. We have actively conducted over 35 emergency drills to enhance our capability to respond to sudden environmental emergencies and reduce the potential hazards of such incidents. During the reporting period, the Company did not experience any major pollution leaks or environmental violations.

In 2023, we updated the organizational structure and management system of the EHS (Environment, Health, and Safety) Committee to comply with or exceed international and domestic regulatory requirements, further ensuring the implementation of EHS work. During the reporting period, we refined the guidelines for employee EHS training to enhance their understanding of newly enacted EHS-related laws, regulations, and industry norms.

We actively promote environmental awareness among employees, integrating environmental concepts into various aspects of production and operations through training and advocacy, advocating for a low-carbon and green lifestyle. During the reporting period, we conducted over 140 specialized training sessions on environmental compliance management, environmental factor identification and evaluation, standardized management of air emissions and solid waste, and radiation safety management, with over 7,000 employees participating in the training. The coverage rate of environmental-related training for employees reached 100%, and the pass rate for training assessments was 100%.

We are committed to building environmentally friendly green factories, adhering to technological innovation and the transformation of Industry 4.0, and supporting the construction of high-standard green factories based on the requirements of the *Green Factory Evaluation Criteria*. Following the honor of being recognized as a green factory by Hongyuan New Material (Baotou) in 2021, the Company plans to apply for provincial and municipal-level green factory certifications in 2024.

During the reporting period, we invested a total of CNY289.68 million in environmental compliance and publicity, environmental technology development, and the construction and operation of environmental facilities. By the end of the reporting period, the environmental management systems of HY SOLAR, Hongyuan New Material (Baotou), Hongyuan Energy, Hongyuan New Material (Xuzhou) and YuanTech had been audited and certified to meet the requirements of ISO 14001, and they obtained the corresponding certification certificates. Other under-construction or newly established plant sites are actively developing environmental management systems in accordance with the requirements of ISO 14001.

Company's Environmental Performance in 2023

Environmental pollution accidents	Disposal rate for hazardous solid waste	Waste gas and waste water discharge
0	100%	meet the standards



Training on Pollution Discharge Permit Management Ledger



Training on Environmental Compliance for New Employees

Energy Management

HY SOLAR strictly complies with the *Energy Conservation Law of the People's Republic of China*, *Measures for the Administration of Industrial Energy Conservation* and other laws and regulations. In accordance with the requirements of ISO 50001 Energy Management System, we have issued and implemented internal regulations and procedures such as the *Energy Management System* and *Energy Management Procedures* to establish a complete and effective energy policy, energy performance objectives, and energy management processes and systems.

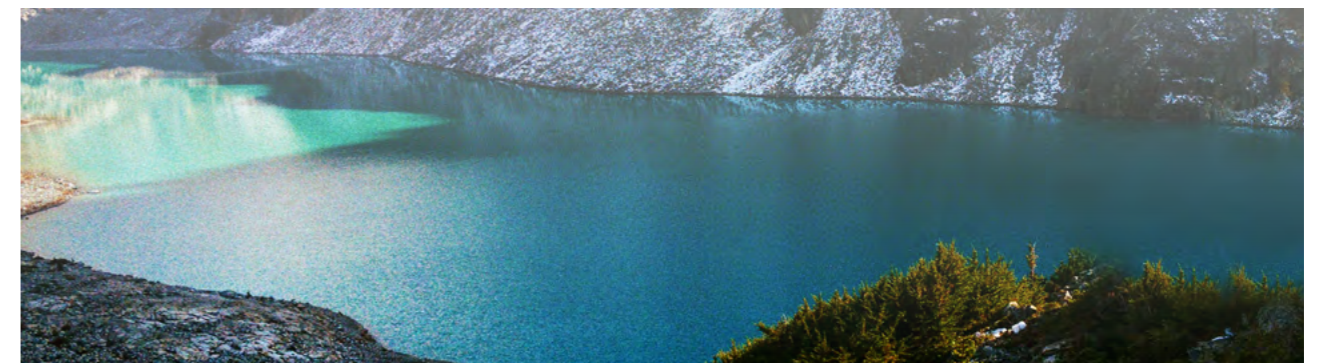
The Company and its production bases have established a Power Facilities Department responsible for energy security, energy consumption data collection and statistics, power equipment management, and the implementation of energy-saving and consumption reduction projects. In 2023, we adopted multiple measures to strengthen energy management, continuously optimize the energy management system, consolidate energy consumption awareness, and improve energy efficiency. By the end of the reporting period, Hongyuan New Material (Baotou) had obtained ISO 50001 Energy Management System certification, and other under-construction or newly established plant sites are actively developing energy management systems in accordance with the requirements of ISO 50001.



Energy-saving Technological Upgrades

HY SOLAR has intensified its efforts in energy-saving technological upgrades, focusing on the development and application of new energy-saving technologies, processes, equipment, and materials. We have planned and implemented energy-saving transformation projects, continuously optimized processes and production systems, and reduced energy intensity. Our aim is to achieve long-term energy savings and reduce our carbon footprint.

During the reporting period, HY SOLAR has planned a total of 34 improvement projects (water and electricity conservation, and resource efficiency). One notable project involved the addition of a decarbonization tower in the distillation unit, which improved power generation efficiency by achieving impurity removal. At the Hongyuan New Material (Baotou) production base, we carried out modifications to the central axis system of monocrystalline furnaces, resulting in increased thermal input, expanded output, and the recycling of concentrated slicing water, thereby achieving cost reduction and efficiency improvement. At the group headquarters base, we conducted energy-saving transformations on semiconductor wafer cutting machines to enhance control accuracy and make thermal deformation of products more controllable. For photovoltaic wafer dicing, we reduced the cutting pitch and diameter while ensuring cutting precision, leading to reduced raw material waste and decreased labor input.



Water Resource Management

HY SOLAR strictly complies with the *Water Law of the People's Republic of China*, *Law of the People's Republic of China on Prevention and Control of Water Pollution* and other laws and regulations, to establish a comprehensive water resource management system and strengthen water resource management. The water resources used in our production and operations are sourced from the municipal water supply network and fire water supply network, primarily for domestic and office use, as well as firefighting emergencies. Our activities do not have negative impacts on local water resources in terms of water extraction, consumption, and discharge. We integrate the concept of water conservation into the entire production and operation process by using air coolers for production equipment to reduce the use of chilled water and achieve water consumption reduction.

In 2023, during the construction of the semiconductor new plant in Wuxi, the Company designed the reuse of reclaimed water for factory circulating cooling water and cleaning processes, maximizing water savings and achieving zero wastewater discharge. In the third phase of the reclaimed concentrated slicing water overflow reuse project at the Hongyuan New Material (Baotou) production base, the daily average savings of tap water reached 1,657.62m³, resulting in a water savings of 333,100 tons compared to 2022.



Water conservation

HY SOLAR constructed a reclaimed water station within the plant area, with a designed treatment capacity of 300 m³/h (summer) to 100 m³/h (winter). The reclaimed water generated by the station meets the reuse standards while complying with national emission standards. This low-cost and efficient treatment system saves approximately 800,000 tons of water annually.



Waste and Hazardous Emissions Management

HY SOLAR strictly complies with the laws and regulations of the *People's Republic of China*, such as the *Law of the People's Republic of China on the Prevention and Control of Air Pollution*, *Law of the People's Republic of China on the Prevention and Control of Water Pollution*, and *Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste*, and *Pollution Standards for the Battery Industry*. We attach great importance to the compliant management of waste and emissions, actively carry out environmental pollution control and waste emission management, and are committed to building an environmentally friendly and green enterprise that meets the expectations and demands of stakeholders. We have developed relevant procedures and management plans to identify and evaluate environmental factors that the Company can control or expect to influence, and manage and control them. During the reporting period, no significant violations or incidents of pollutant emissions or leaks occurred.

Exhaust Gas

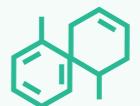
The Company's main air pollutants include suspended particulate matter, nitrogen oxides, sulfur dioxide, toluene, xylene, and non-methane total hydrocarbons. Adequate air monitoring and control facilities are in place for various types of air pollutants, with regular monitoring and reporting. After purification treatment to meet national emission standards, the emissions are released, reducing environmental impacts and operational risks. At the Hongyuan New Material (Baotou) production base, fluoride emissions were reduced through equipment modifications to meet the emission standard of 1.5mg/L, resulting in emission reduction. During the reporting period, no incidents of air emissions exceeding the standards occurred. In 2023, YuanTech Solar, Hongyuan New Material (Baotou), and Hongyuan New Material (Xuzhou) jointly emitted 9.42 tons of nitrogen oxides, 2.09 tons of volatile organic compounds (VOCs), and 9.33 tons of particulate matter. Compared to 2022, nitrogen oxide emissions decreased by approximately 4.6% and VOC emissions decreased by approximately 70% at Hongyuan New Material (Baotou).

Compared with 2022, Hongyuan New Material (Baotou) nitrogen oxide emissions decreased by approximately

4.6 %

VOC emissions decreased by approximately

70 %



Treatment of Air Pollutants

HY SOLAR actively implements measures to control air pollutants by adopting a dry filtration system followed by catalytic combustion for air treatment facilities. Waste gases generated during welding, lamination, and component cleaning processes are collected and treated by the "dry filtration + zeolite wheel + catalytic oxidation" system installed in each workshop, and then discharged after meeting the standards. This measure reduces the emission of volatile organic compounds into the air, lowers air pollution, improves overall efficiency of waste gas treatment, and enhances the Company's end-of-pipe emission control capability.

Wastewater

During the construction of each production base, HY SOLAR designs and builds the sewage system based on the "separation of rainwater and sewage" principle. The wastewater generated during production is collected and treated by supporting wastewater treatment facilities. Reclaimed water is reused in the production process, while domestic wastewater is collected by the park's sewage network and discharged to the city's sewage treatment plant after meeting the standards. During the reporting period, 100% of the Company's wastewater met the discharge standards.

Wastewater Treatment

HY SOLAR constructed a production wastewater treatment station within the plant area, with a designed treatment capacity of 70 m³/h. The station ensures that production wastewater is not discharged externally and meets the requirements of the environmental protection department for wastewater discharge. Approximately 390,000 tons of wastewater are treated annually.

The design scale of the production wastewater treatment station is

70 m³/h

Annual sewage treatment capacity is

390,000 tons



Waste Management

HY SOLAR has developed the *Solid Waste Control Procedure* and *Industrial Waste Management Procedure* to classify, collect, store, and transfer waste based on the national hazardous waste list and characteristics. The Company's solid waste includes industrial waste and household waste. We classify and collect non-hazardous waste according to established standards, establish waste collection facilities, and entrust qualified units to transfer and dispose of the waste. Hazardous waste is subject to special management procedures, with strict recording in the "Hazardous Waste Ledger", the establishment of emergency plans, and entrusting qualified institutions for harmless disposal. Household waste is regularly handed over to the municipal sanitation department for unified collection and treatment. We also conduct qualification audits and regular inspections of commissioned units, closely tracking the transportation and disposal of waste to ensure 100% compliance in solid waste management. In 2023, the Company generated approximately 31,760.72 tons of general industrial solid waste and 59.64 tons of hazardous waste, achieving a 100% compliance rate in collection and disposal. No penalties were incurred during the reporting period for exceeding pollutant limits or unauthorized emissions.

In 2023, the Company generated general industrial solid waste is approximately

31,760.72 tons

hazardous waste about

59.64 tons

compliance rate in collection and disposal

100 %

Proper transfer

On-site inspections by departments to prevent waste mixing

Registration and storage

Weighing and recording all incoming hazardous waste, tracking management

Proper transfer

Signing disposal contracts with qualified suppliers, ensuring timely operations, and maintaining transfer manifests and inventory records

Recycling

High-value recyclable waste is weighed and recorded according to disposal contracts

Chemicals

HY SOLAR has developed the *Chemicals and Oil Control Procedure*, which clearly defines and details the entire process of purchasing, transporting, storing, issuing, using, and disposing of hazardous chemicals and oil. The chemicals involved in the Company's production and operation include hydrochloric acid, hydrofluoric acid, nitric acid, sulfuric acid, etc. We have implemented comprehensive leak detection measures and actively conducted emergency drills related to chemicals to minimize adverse environmental impacts. No chemical leaks occurred during the reporting period.

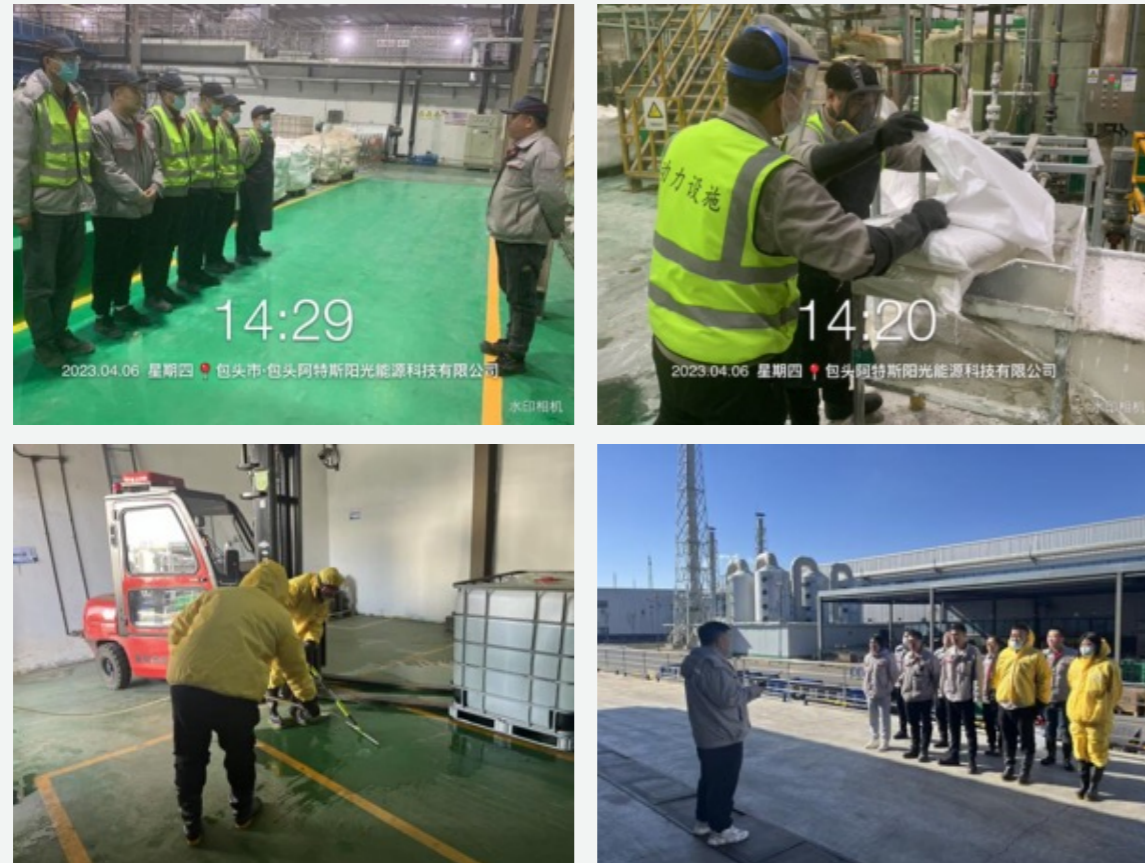
HY SOLAR conducted four chemical emergency drills, including argon gas leakage, acid leakage in the silicon material department, and chemical burns, with a total of 205 participants.



Argon Gas Leakage Accident Drill



Acid Leakage Emergency Drill in the Silicon Material Department



◦ Chemical Burns Emergency Drill



Leakage of Silicon Incident Emergency Drill

In June 2023, Hongyuan New Material (Baotou)'s production base conducted a drill for the on-site disposal plan for a silicon leakage incident. The drill included accident response, emergency evacuation, on-site emergency disposal, and the use of firefighting equipment. With the guarantee of emergency resource demand, the drill tested the practical operational and adaptive capabilities of emergency response personnel in handling silicon leakage incidents.



Noise

The equipment that generates noise during the Company's production and operation processes includes cutting machines, polishing machines, and metal processing equipment. To effectively manage the noise generated by the Company's production activities, we have established the *Noise Control Procedure* and selected low-noise equipment, implemented proper equipment layout to reduce noise levels inside and outside the plant, and used soundproofing measures such as wall insulation. We have also implemented appropriate vibration isolation or shock absorption measures, such as installing vibration isolation bases for vibrating and high-noise equipment, to reduce vibrations and noise. Additionally, we have installed noise monitoring instruments to conduct quarterly routine tests on noise sources and regularly engage qualified institutions to monitor and record equipment noise levels. These comprehensive noise control measures ensure that the noise levels at the plant boundary comply with the *Industrial Enterprise Plant Boundary Noise Emission Standards*. No noise complaints were reported during the reporting period.

Ecological Conservation

HY SOLAR pays attention to the impact of its production and business activities on ecosystems and biodiversity. The Company strictly complies with relevant laws and regulations and actively incorporates the impact on ecology and biodiversity into its decision-making and activities. The development, construction, and site selection of all the Company's base projects are not located in or near natural resource conservation areas or areas with rich biodiversity. Throughout the entire process of planning, land acquisition, licensing, development, and site operation of production bases, the Company has established a sound environmental protection system, including project redlining, preliminary assessment, project approval, reexamination, and commencement. During the reporting period, no significant impact on biodiversity was identified in the Company's production, operation activities, products, and services.

Coordinated Cooperation for Shared Value Creation

RESPONSE:

- Strengthening supply chain management
- Becoming a platform for talent growth
- Guarding Employee Health and Safety
- Supporting social programs

ACTION:

- Issued the *Supplier Code of Conduct*
- Conducting anonymous research to collect employees' opinions
- Special care for female employees and vulnerable groups
- Provided continuing education opportunities and organize skills competitions

Objectives	2023	ACHIEVEMENT
100% coverage of collective contracts and collective contracts for women workers	Completed	
Employee training coverage 100%	Completed	
Providing more employment opportunities	Added over 2000 new jobs	
No chemical spills, new occupational diseases, minor work-related injuries and work-related deaths	Completed	
Community contribution and philanthropic input	CNY 2.0237 million	

Sustainable Supply Chain	P51
Employee Rights	P53
Human Capital Development	P59
Occupational Health and Safety	P63
Community and Charity Contributions	P66

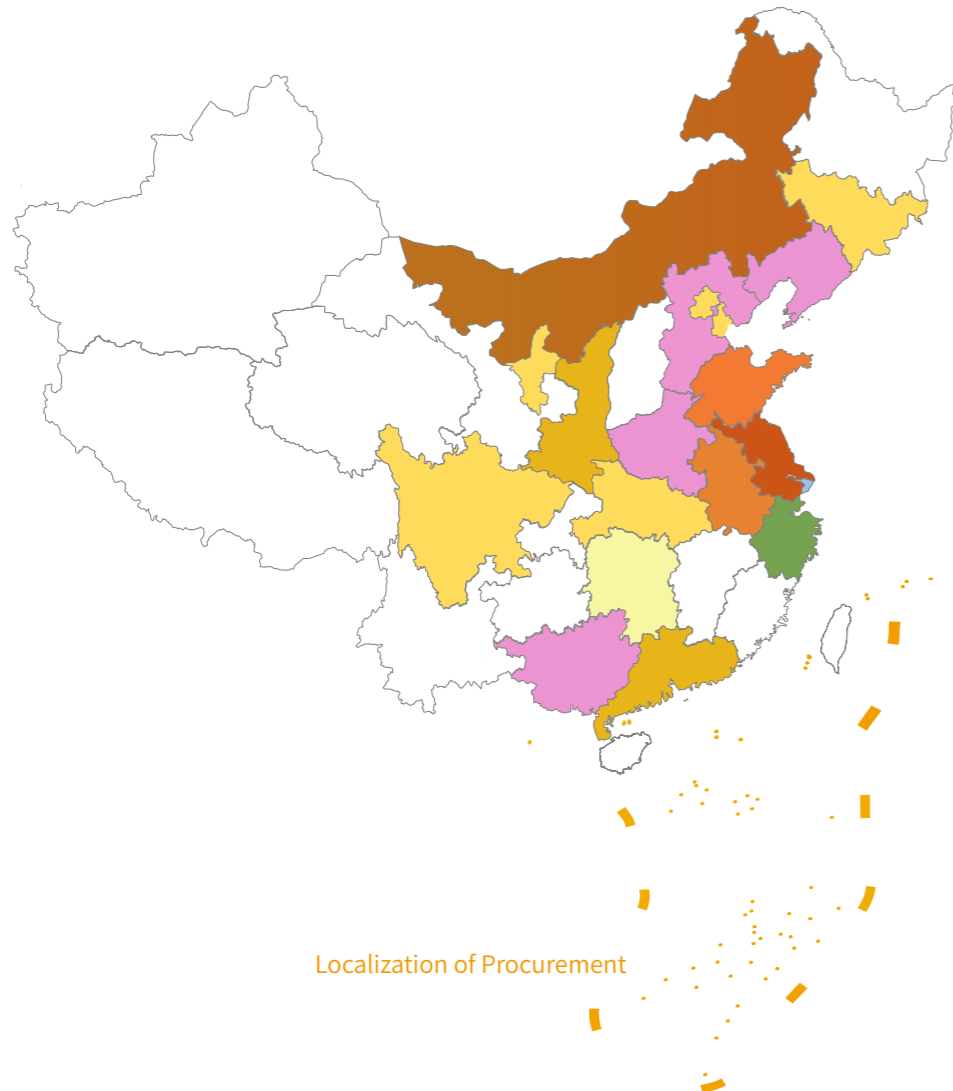


Sustainable Supply Chain

A reliable supply chain management is the foundation for our stable production of safe and high-quality products. The Company explores the organic integration of sustainable development and supply chain management to enhance supply chain resilience, reduce uncertainty and risks, and contribute to a sustainable future. The Company's procurement mainly includes materials, equipment, engineering, logistics, consulting, information services, etc. To this end, we have established cross-departmental management teams, including procurement, quality, process, and research and development departments, and formulated supplier management and assessment forms such as *Procurement Management Procedure*, *Supplier Procurement Management Standards*, *Supplier Evaluation Report* and *Supplier Evaluation Scorecard* to standardize supplier admission, evaluation, and exit processes.

At the same time, we have issued the *Supplier Code of Conduct* to urge suppliers to pay attention to conflict mineral issues and commit not to purchase any tin, tantalum, tungsten, gold, mica, cobalt, or other materials from illegal sources.

The raw materials used in our self-operated silicon processing base are all sourced from domestic mines with clear origins and compliant governance, ensuring no human rights violations.



HY SOLAR Supply Chain Management Details



- Responsible Procurement**
 - The procurement contracts clearly define clauses related to integrity, environment and safety, and anti-slavery. Some suppliers are also required to meet packaging requirements for green environmental protection.
 - Suppliers are categorized and required to sign anti-commercial bribery and anti-fraud commitments, as well as safety and environmental protection commitments.
- Safe Procurement**
 - Some suppliers are required to provide proof of RoHS and REACH compliance, as well as product standards or certification.
- Stable Procurement**
 - Regular supplier performance evaluations are conducted on a quarterly and annual basis for both raw materials and other materials suppliers.
 - Risks associated with suppliers are identified from multiple dimensions such as capacity, technology, delivery, and finance, and corresponding measures are taken.
 - Local procurement practices are implemented to reduce environmental impact while meeting quality requirements.

100%
Coverage of ISO 9001 certification for material suppliers

* Main materials: mainly polysilicon, crucibles, battery wafers, adhesive film, tempered glass, potting adhesive, silicone, interconnecting strips, converging strips, junction boxes, aluminum frames, cutting lines, cleaning agents and so on;
Auxiliary materials: mainly flux, junction box, film, packaging materials, silicone, busbar (solder tape), etc.


Employee Rights

Equality and Diversity

The rapid development of HY SOLAR is inseparable from the contribution of its employees. Establishing an appropriate employment system is crucial for consolidating the achievements of the Company's development.

The Company continues to expand talent acquisition channels to reserve talents for the Company's development, including but not limited to campus recruitment, online recruitment, and internal referrals. We adhere to the principles of equality, diversity, and inclusiveness to build a platform for mutual development, create a harmonious and efficient working environment, and accelerate the release of talent potential.

By 2023



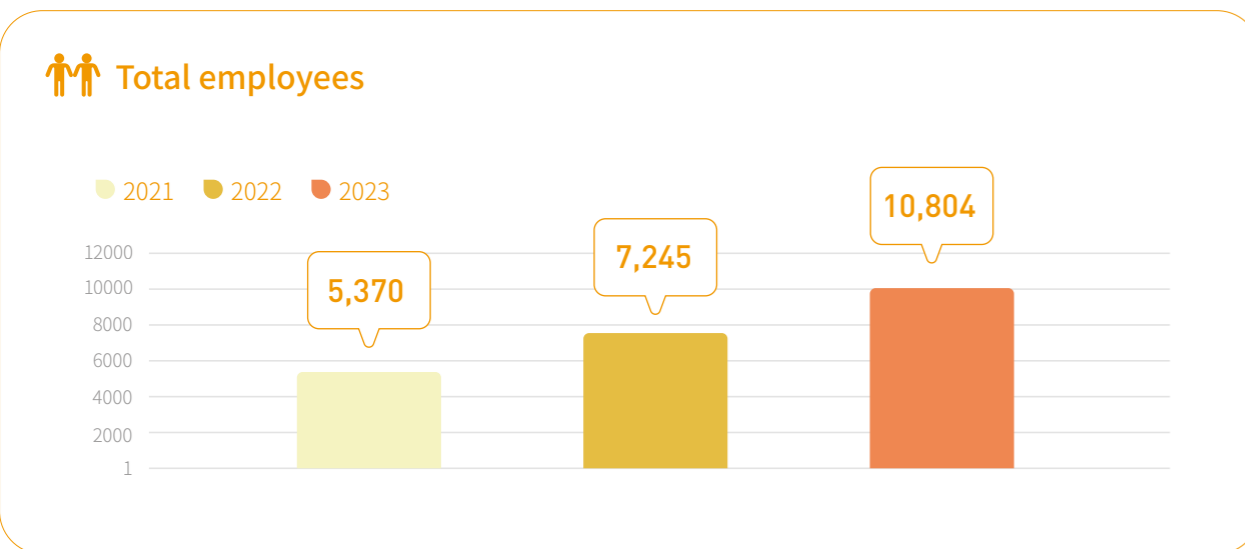
the number of HY SOLAR employees has reached

10,804

In accordance with the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, and international labor organization conventions, the Company has issued the *Recruitment Management System* and compiled the *Employee Handbook*. We provide convenience for democratic management and supervision of employees and sign collective agreement documents with labor unions and employee representatives, such as *Collective Contract*, *Special Collective Contract for Protection of Female Workers' Special Rights*, and *Collective Bargaining Agreement on Wages*, to clarify requirements in areas such as gender equality, anti-forced labor, anti-child labor, anti-discrimination, freedom of association and collective bargaining, working hours and rest, remuneration and benefits, health and safety, and effectively protect employees' rights. In the recruitment process, we use identity recognition machines to ensure that all newly hired employees are at least 18 years old, avoiding the use of child labor or underage workers due to the provision of false information.



Disability-friendly Access




Coverage of collective contracts for employees

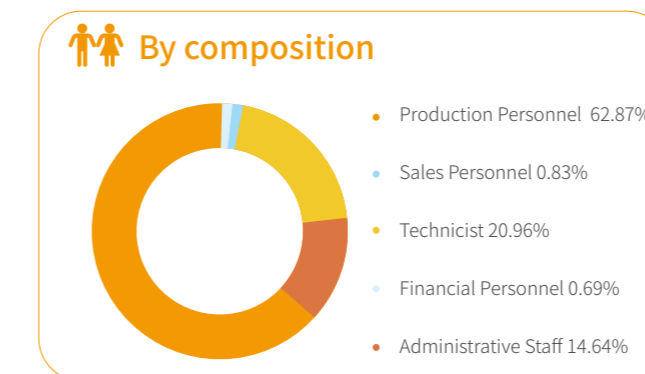
100%



Coverage of collective contracts for female workers

100%

During the reporting period, no complaints of child labor, forced labor, discrimination, or other violations of labor standards were received at any of the Company's bases.

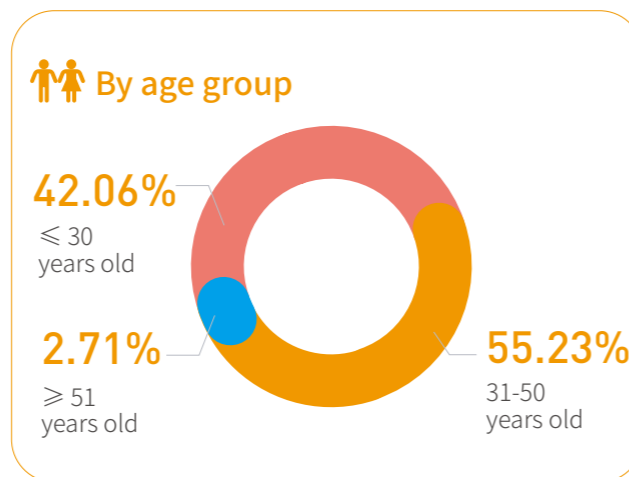
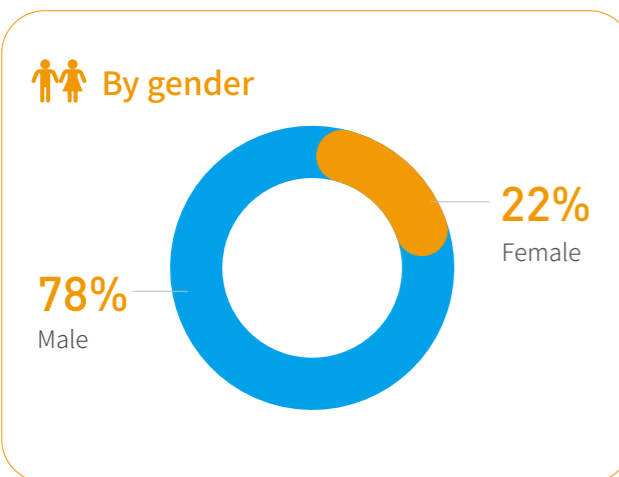


Ethnic minority employees

544

Employees with disabilities

82



Remuneration and Incentives

The Company develops a remuneration system based on job value and performance orientation, taking into account the labor market wage levels, the consumer price index, and the Company's performance. The system reflects performance and ability differences in a positive manner, motivating employees to develop in multiple channels and improve their job performance.



Hongyuan New Material (Baotou) Workers' Congress

In August 2023, the Hongyuan New Material (Baotou) held its congress as scheduled, with a total of 459 employees in attendance. We ensure that employees fully exercise their participation and expression rights. Through anonymous surveys, we collect employees' genuine demands. A special collective contract supervision and inspection team was established to address employee concerns and stabilize the talent pool.

Employee Rights

Effective Communication and Care

All employees in HY SOLAR have equal opportunities for promotion, advancement, professional title evaluation, and improvement of welfare benefits. They will not be discriminated against based on factors such as race, religion, gender, age, marriage, or disability. We have established democratic communication channels and welcome employees to recommend themselves or express their opinions, aiming to enhance their sense of identity and persuasion. In addition to regular contributions to social insurance and housing provident fund for all employees as required by regulations, we provide various benefits such as statutory holidays, parental leave, and paid sick leave, as well as festival bonuses, major illness condolences, team-building activities, and birthday celebrations.



Employee Counseling Program



Parental Leave Vacation	Unit	Male Employees	Female Employees
Employees on Parental Leave	Person	115	25
Employees who should return to work after the end of parental leave during the reporting period		115	25
Employees who actually returned to work after the end of parental leave during the reporting period		115	25
Return-to-work rate of employees on parental leave*	%	100	100

*Return-to-work rate = Total number of male (female) employees who returned to work after the end of parental leave / Total number of male (female) employees who should return to work after the end of parental leave

The Company cares for its employees by taking multiple measures to improve living and logistical support conditions, organizing leisure and cultural activities, enriching the employees' cultural life, and regularly arranging various recreational activities to allow employees to enjoy their lives while working hard. Starting from practical work, we address the most concerning and realistic issues related to employees' immediate interests, including providing support to employees facing difficulties and helping employees' children enroll in nearby schools. We strengthen humanistic care services for employees and strive to solve their concerns as much as possible.



Employee feedback channels

We strictly adhere to the collective contract for the protection of female workers' rights, ensuring the rights of female employees. In addition to various exclusive holidays, we also pay attention to the physical health of female employees. Every year, we conduct gynecological examinations for female employees and organize special activities on International Women's Day to distribute welfare to female employees. In terms of work intensity, we specify prohibited labor for female employees through contract attachments and conduct annual joint sex checks to review compliance. In 2023, Hongyuan New Material (Baotou) was awarded the "Women's Red Banner Collective" title by Qingshan District.



Distribution of gifts to female employees on International Women's Day



New Employee Talk, Birthday Celebration

Employee Rights



Team-building activities



Tug-of-War competition



Summer evening gala



Snooker competition



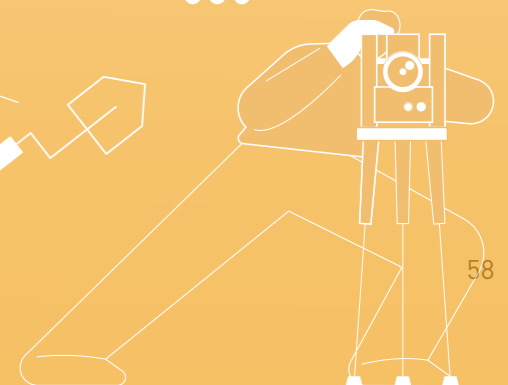
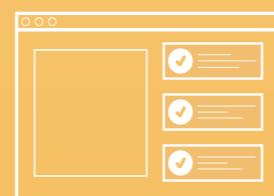
Dragon Boat Festival pitch-pot game



Mid-Autumn Festival riddle guessing

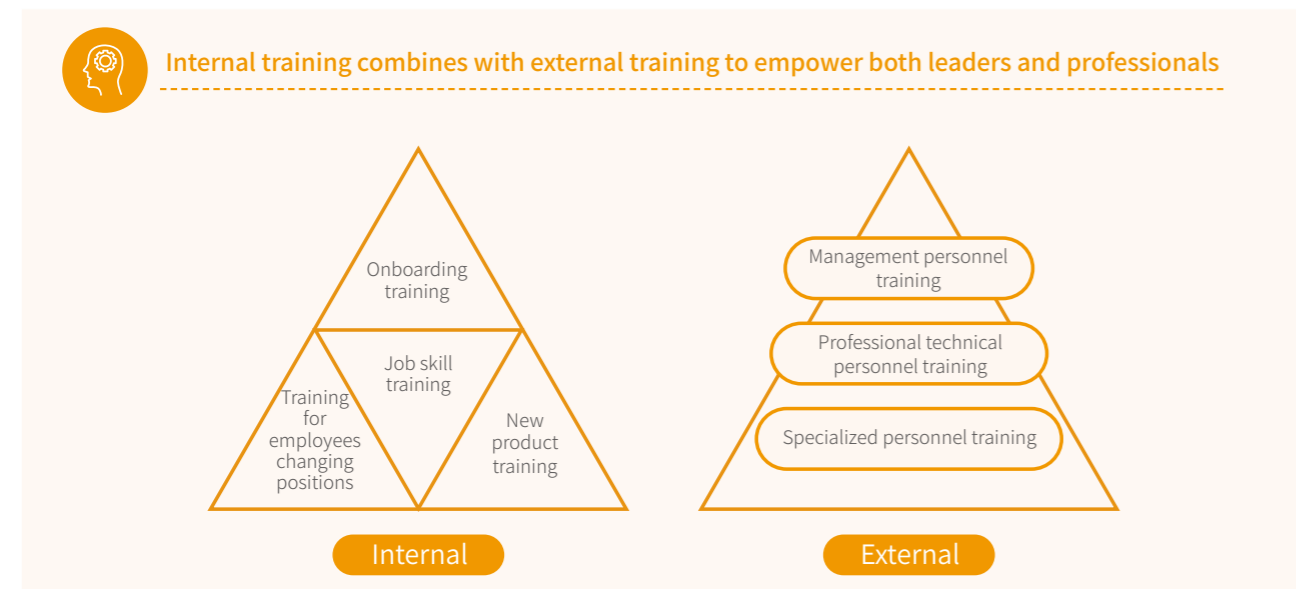


Fun Sports Day



Human Capital Development

We actively create conditions for employees to be proactive and meet their learning and development needs, enabling them to achieve their career goals and personal value in resonance with the Company's development. We have allocated CNY 992,900 for employee training and education. HY New Material was honored with the National Workers' Vanguard title and was selected for the annual list of civilized units in Baotou City, based on its outstanding practices in employee activities and cultural cultivation.



Company-level training courses for 2023

Training Category	Course Category	Scheduled Hours (hours/session)
Corporate Culture	Onboarding training for new employees	8
	Training on HR regulations and rules	
General	Interdepartmental communication skills	2
Professional Skills	Pre-employment safety training	8
	Basic knowledge and on-site management	4
	Standardization of corporate safety production	2
	Analysis of typical accidents and emergency rescue cases	
	Equipment operation precautions	
Slicer process flow		
	Strategic management for major clients	3



Onboarding training for new employees



Safety training for production personnel



Training on marketing to major clients

Human Capital Development

Benefits for Employees, Nurturing of Excellent Talents

In accordance with the *Skill Level Management Regulations*, the Company organizes quarterly centralized skill assessments, promptly publicizes the results for employee supervision, and continues to promote the reform of occupational skill level recognition for key positions in the production and quality departments of Hongyuan New Material (Xuzhou). Employees who pass the assessments receive corresponding subsidies, encouraging the integration and development of technical talent and overall improvement of the talent pool. By the end of the reporting period, a total of 175 employees have been assessed and rewarded for their promotion, including 114 at the junior level, 32 at the intermediate level, and 29 at the advanced level.

By the end of the reporting

Employees who pass the assessment were

175 people



• Practical skill enhancement and theoretical exams

Mastering Excellence in Craftsmanship

Highly skilled talents are always an important driving force for the development of the manufacturing industry. The Company has consistently regarded the nurturing of skilled talents as an important means to enhance core competitiveness. On November 23, 2023, the closing ceremony of the second "HY SOLAR Gold Craftsman" Lean Production Skills Competition was successfully held. Advanced collectives and outstanding individuals were recognized for their outstanding performance in the competition. Taking the skills competition as an opportunity, we promote the establishment of a virtuous cycle for the advancement of skilled talents with characteristics of the photovoltaic industry, enhancing the reputation of HY SOLAR as a symbol of excellent craftsmanship and providing a stage for outstanding individuals to shine.



HY SOLAR Star

The development of a company requires both an excellent production team and a diligent functional team. We appreciate the efforts of all employees and conduct the "HY SOLAR Star" selection activity at our Xuzhou base every month, targeting employees from various departments, including functional departments. Employees who make it to the list will receive an honorary certificate and incentive bonus. The "HY SOLAR Star" awards also play a role in annual evaluations and promotions. Additionally, the list of awardees and their exemplary deeds will be regularly posted on the Company bulletin board to inspire collective enthusiasm.

The Company promotes innovative development in vocational education, higher education, and continuing education through school-enterprise cooperation. This initiative aims to meet the employees' needs for improving professional knowledge and enhancing their educational background, aligning with the Company's talent strategy and optimizing the talent structure. We provide a 50% subsidy on tuition fees for employees who apply for continuing education, reducing the barriers for employees to pursue further education and supporting their educational aspirations. As of the end of the reporting period, 20 employees of HY SOLAR Xuzhou have been included in the discounted list for the 2023 employee educational advancement program.

Occupational Health and Safety

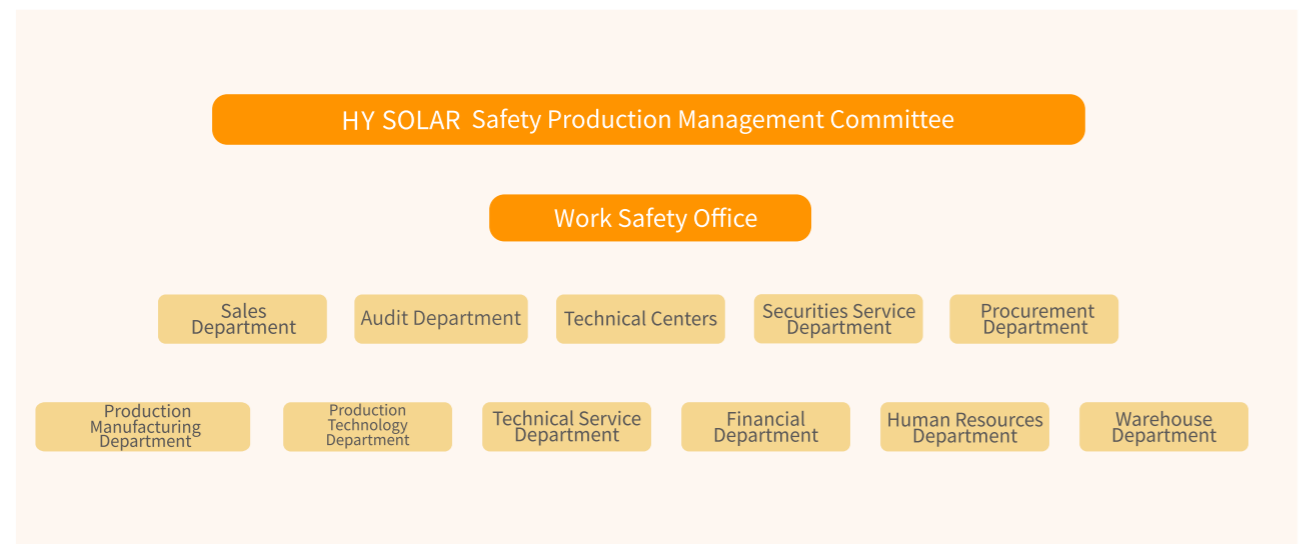
HY SOLAR fully complies with labor safety and occupational health laws and regulations, implementing the principle of "safety first, prevention-oriented, comprehensive governance". We firmly establish the concept of "employee life is of paramount importance", fulfill the enterprise's main responsibility for production, and promote the improvement of safety and health management systems at all production bases. This ensures stable governance of employee safety and health.

Comprehensive System Coverage

HY SOLAR has established and effectively operates an occupational health management system. We have set up a cross-departmental safety production management committee, chaired by the Chairman of the Board, with responsible persons from various departments and employee representatives serving as members. This guarantees strengthened investment of funds and resources to support production management work. In terms of system certification, multiple business entities have obtained ISO 45001 Occupational Health and Safety Management System certification, as well as recognition from external entities such as second-level standardized enterprises for safety production, third-level standardized enterprises for safety production, and excellent cases of health enterprise development by the National Health Commission.

External Compliance	Internal Abidance	OSH Investment*
All officially operational sites have passed the ISO 45001 Occupational Health and Safety Management System review	Management measures and regulations over 50 sets	More than 39 million

*Statistics include safety training, occupational health examination, purchase of safety equipment, etc.



Stable Risk Management

The Company coordinates and deploys special activities for safety production through the Safety and Environmental Protection Work Meeting and the Safety Production Committee. Each base updates occupational health and safety production goals annually, conducts at least one occupational hazard factor detection per year, and distributes labor protection supplies such as earplugs and masks quarterly based on the detection report results. Additionally, the Company conducts annual hazard identification, risk assessment, and hidden danger investigations, forming a risk list to guide rectification work. Responsible individuals track the progress, and after confirmation, necessary notifications are provided to employees. Currently, major production bases are replacing hazardous work with robots and manipulators, reducing production risks faced by employees by increasing the utilization of smart equipment.

To leverage the supervisory role of employees, we publish safety production supervision telephone numbers and email addresses in the production area, allowing employees to easily provide suggestions for safety improvement. Employees can also report directly to the on-site managers, and the Company will promptly rectify the issues after investigation.

In 2023, a total of 1,155 issues were identified through special safety inspections, with a rectification rate of 100%.

Occupational Health and Safety Goals	Status of achievement
Industrial noise reached standards 0 chemical leaks per year 0 fire and explosion accidents throughout the year No occupational diseases occurred 0 incidents of minor injuries 0 incidents of severe injuries, disabilities, or fatalities	Achieved



Occupational Health and Safety

Community and Charity Contributions

Frequent Training and Drills

In order to ensure that employees fully understand the importance of safety production and enhance their safety awareness and sense of responsibility, and to encourage employees to actively identify and rectify safety hazards in their work areas, the EHS departments of HY SOLAR's various bases have organized nearly a hundred safety training sessions, accumulating over a thousand participants, in accordance with the annual training plan. The training courses include environmental hazard identification training, occupational health and safety knowledge training, and multiple emergency response drills. Through summarizing exposed issues and deficiencies and timely improvement, the training reinforces safety advocacy for key personnel.



Fire Safety Day



YuanTech Solar Chemical Training



Hongyuan New Material (Baotou) Argon Gas Leak Accident Drill

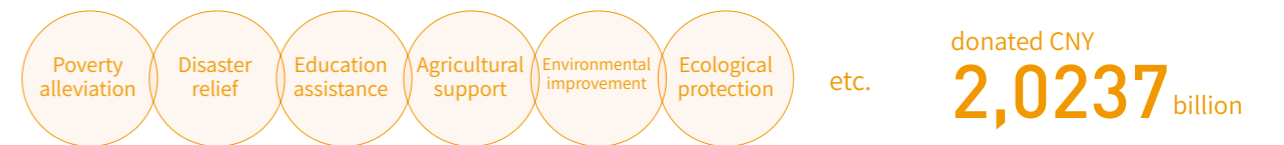


Hongyuan Energy Emergency Plan Drill

2023	Coverage of Physical Examinations and Health Records	Occupational Health and Safety Emergencies	Significant and above Production Safety Accidents	Work-related fatalities due to production accidents	Million Hours Lost Time Injury Frequency
	100%	0 case	0 case	0 case	0.477

HY SOLAR responds to the national call for "common prosperity", takes responsibility to heart, and actively participates in community building, charitable assistance, and other social welfare undertakings. Internally, we are pragmatic and fully tap into the potential of positions to create employment opportunities. Through business planning, institutional measures, and performance assessments, we hope that employees can achieve "employment for one person, poverty alleviation for the whole family" after joining the Company. Externally, we provide meticulous services, maintain close connections with society, establish smooth communication channels, and promote a virtuous cycle of "sharing regional resources and sharing development achievements".

In 2023, we donated CNY 2,0237 billion in poverty alleviation, disaster relief, education assistance, agricultural support, environmental improvement, and ecological protection.



Visiting Impoverished Households



Summer Refreshment Delivery Event

Spring Forest Fire Prevention Volunteer Activity

The heavens move in silence, and the earth gives rise to all things without words. Development has improved our lives and changed the environment we inhabit. In 2023, Hongyuan New Material (Baotou) engaged in volunteer services in nature, clearing flammable materials and learning practical skills for wildland firefighting.



Strengthening the Foundation for a Long-lasting Business

RESPONSE:

- Responsible corporate governance
- Provideing high quality and detailed services
- Assuming the responsibilities of a listed company

ACTION:

- Rigorous construction of the three boards, emphasizing pluralism and independence
- Strengthen risk management and enhance publicity and training
- Establishment of monitoring and reporting channels and protection of rewards for whistle blowers
- Establishment of a diversified capital market communication system

Objectives	2023	ACHIEVEMENT
Directors' attendance rate (Board of Directors, specialised committees) 100%	Completed	
Ensure the legality and fairness of related party transactions	Completed	
2022-2023 Shanghai Stock Exchange's information disclosure evaluation	B	
Signature rate of employees on <i>Commitment to Integrity</i>	100%	
No cases related to unfair competition and tax violations	Completed	
No information security and privacy leakage	Completed	

Corporate Governance	P69
Risk Management	P69
Information Security Management	P75
Investor Relations	P77
Customer Relationship Management	P78

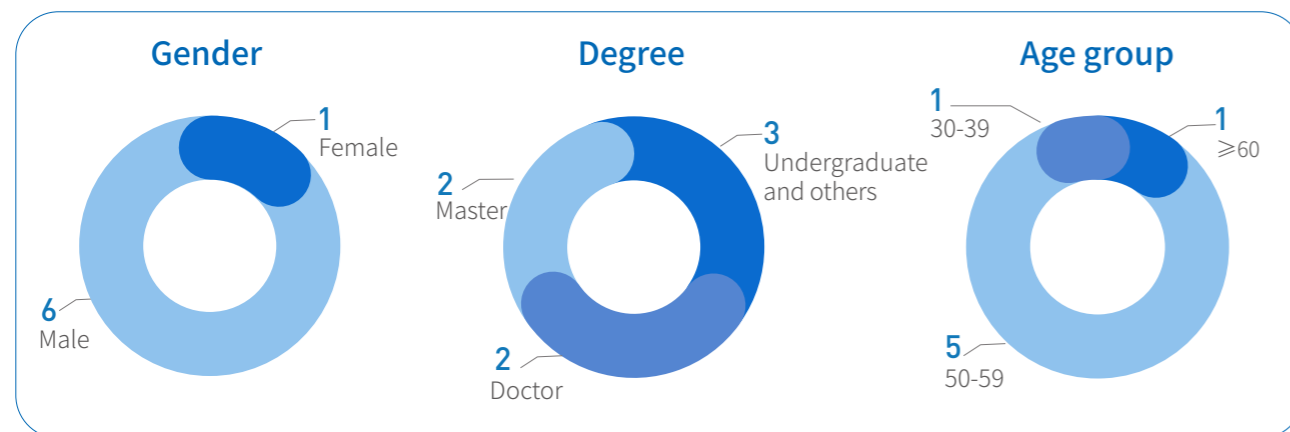


Corporate Governance

A scientific governance system and a reasonable allocation of rights and responsibilities are important prerequisites for a company to consolidate its foundation. As a listed company on the A-share market, HY SOLAR strictly adheres to regulations such as the *Company Law of the People's Republic of China*, the *Securities Law of the People's Republic of China*, and the *Guidelines for Corporate Governance of Listed Companies*. We have established the Company's governance structure, which includes the Shareholders' General Meeting, the Board of Directors, the Supervisory Board, and the Management Team. The Board of Directors has committees such as the Strategic Committee, the Compensation and Assessment Committee, the Nomination Committee, the Audit Committee, and the SDG Committee. These committees are responsible for the overall operation, supervision, and regular review and assessment of the Company, ensuring high-level corporate governance to protect the interests of all stakeholders and build a high-value corporate brand.

Diversity and Independence

The election of the Board of Directors is conducted every three years, and the appointment of board candidates considers diverse criteria, including but not limited to gender, age, culture, educational background, industry experience, professional qualifications, and skills. As of the end of the reporting period, the Board of Directors consists of seven members, including three independent directors and one female director, with rich experience in finance, financial management, smart manufacturing, global market experience, and risk management. This enhances the scientific and feasibility aspects of the Board's decision-making. The Supervisory Board consists of three members, including one employee representative.



Except for the Chairman of the Board, who serves as the convener of the Strategic Committee, the conveners of the Nomination, Audit, and Compensation and Assessment Committees are all independent directors.

Committee	Percentage of Independent Directors (%)	Number of Meetings
Nomination Committee	67%	1
Audit Committee*		6
Rumuneration and Assessment Committee		1

*The convener is a professional in accounting.

Key Performance

Shareholders' General Meeting	Board of Directors Meeting	Supervisory Board Meeting
Convened 5 meetings	Convened 15 meetings	Convened 11 meetings
Reviewed and approved 22 motions	Reviewed and approved 57 motions	Reviewed and approved 42 motions

Director remuneration and performance incentive plans are implemented after approval by the Shareholders' General Meeting. The senior management remuneration management system is implemented after deliberation by the Board of Directors. The remuneration of the aforementioned personnel, except for independent directors, consists of basic salary and performance incentives.

Risk Management

Comprehensive risk control is the only way for organizations to seize development opportunities. The Company integrates changes in laws and regulations, business expansion needs, and compliance management goals, and assigns risk management and internal control to the Legal Affairs Department. The headquarters and the legal affairs departments of subsidiaries form a two-tier risk management coordination and execution mechanism. Through the "Identify-Prevent-Control" three-step process, the Company achieves regular monitoring and governance of operational, financial, and operational risks in various production and operational processes. During the reporting period, the Company revised several management documents such as the *Integrity Management System* and the *Anti-Unfair Competition Management System*, clarifying risk classification and grading standards, laying a foundation for establishing and improving comprehensive risk management and internal control mechanisms.

Management Requirements

Risk Identification

Delegation by Position: The headquarters and subsidiaries conduct annual integrity self-inspections in key positions such as procurement, sales, production, research and development, finance, and personnel. By analyzing institutional processes, job responsibilities, and personnel behavior, risks are identified.

Risk Control

Hierarchical Prevention: Combining the Company's actual business, risk assessments are conducted to determine the level of integrity risks in key positions. Based on the level of integrity risks, different levels of management are implemented for positions with different risk levels.

In 2023, we organized a special training on *Legal Risk Prevention and Management in Enterprise Employment* at our main production bases. On one hand, this helped us avoid potential legal risks in labor employment and improve our risk management effectiveness. On the other hand, it provided beneficial guidance for employees to protect their own rights and interests, accelerating the transformation of labor costs into human capital. We regularly conduct integrity training for senior executives, inviting the judiciary to provide on-site training, enhancing the legal awareness and bottom-line thinking of management personnel.



Through long-term practice, the Company has gradually developed a diverse compliance awareness promotion system that combines on-site training, online courses, and daily publicity. We continuously implement key training programs on integrity education, values promotion, code of conduct, risk prevention, and more.



Training on Interpreting Bidding Laws and Regulations and Contract Negotiation and Review Standards

Responsible Business Practices

Compliance with business ethics is not only the expectation of society towards business entities but also a reliable guarantee for maximizing the value chain benefits for enterprises. The Company requires all employees to conduct business in accordance with the laws and regulations of the markets in which they operate. We have implemented the *Anti-Unfair Competition Management System* to ensure that all employees fully understand and address issues related to commercial confusion, commercial bribery, false advertising, unfair prize sales practices, infringement of trade secrets, defamation of competitors, and unfair competition in the online domain. Compliance management requirements are embedded in frontline business operations to guide employees in handling issues properly and ensure comprehensive and all-encompassing compliance throughout the entire process.

The Company has signed a *Commitment to Integrity* with all employees and regularly organizes integrity-based training, anti-corruption activities, and ethics culture education to urge employees to uphold the bottom line of compliance. Additionally, we include integrity provisions in contracts with suppliers, and suppliers who seriously violate the Company's integrity regulations will have their cooperation terminated.

In the face of complex international political, economic, and legal environments, the Company actively expands its overseas business markets while maintaining a strong focus on compliance in the overseas business chain. We have timely introduced the "Overseas Supplier Code of Conduct", which clearly demonstrates our commitment to jointly maintaining business ethics, protecting the environment, safeguarding human rights, and ensuring equal working conditions with enterprises in the value chain. We have established comprehensive institutional arrangements to address the challenges of compliance in overseas operations, providing strong support for high-quality cross-border development.

Corporate Ethics	Environmental Protection	Human Rights and Fair
<ul style="list-style-type: none"> Anti-corruption and commercial bribery Prevention of money laundering and terrorist financing Data protection and data security Fair competition and anti-trust law Conflicts of interest Intellectual property Export control and economic sanctions Whistleblowing and protection 	<ul style="list-style-type: none"> Environmental management compliance Use of natural resources and air pollution Climate protection and reduction of greenhouse gas emissions Waste, wastewater and hazardous substances Product quality and safety Conflict minerals 	<ul style="list-style-type: none"> Anti-forced labor and prohibition of child labor Anti-discrimination Occupational health and safety Regulations governing hours of work and pay The right of freedom of association and collective bargaining



Electronic Publications

Key Performance

Coverage of integrity training in production bases	Integrity training	Regular audits and special inspections
100 %	24 sessions	46 times

Responsible Marketing

Conducting corporate influence promotion in a responsible manner is essential for building brand reputation. All marketing activities carried out by HY SOLAR comply with relevant laws, regulations, and social norms applicable to the operation sites and business locations. All textual and data-based promotional content is based on the actual situation of the Company's products, reliable sources, and supporting data.

We have issued the "HY Market Marketing Compliance Management Document", the Marketing Center's "Product Information Disclosure Compliance", and "Anti-Corruption Compliance Handbook for Marketing Personnel" to restrict employees and marketing partners from using any false or misleading advertising, ensuring the accurate and truthful communication of corporate and product information to customers and the market. Additionally, all marketing-related employees regularly receive responsible marketing compliance training, including but not limited to marketing laws and regulations, industry guidelines, and internal regulations, to strengthen internal communication and deepen employees' understanding of marketing compliance systems, ensuring that actual business operations do not cross ethical boundaries.

In 2023, we established marketing service centers in Germany and Singapore, where service personnel can promptly respond to customer inquiries in the local language and provide product documents presented in the local language, thereby enhancing information accuracy and optimizing customer experience.



◦ Multilingual Product Brochure

Supervision and Reporting

HY SOLAR actively creates a safe and confidential reporting environment, establishing a compliant reporting system that is not subject to retaliation. This system allows for early detection and correction, protects the legitimate rights and interests of the Company and whistleblowers, and optimizes the business environment. The Company specifies reporting channels in multiple documents, including but not limited to employee handbooks, procurement agreements, and supplier code of conduct, encouraging all stakeholders, including but not limited to employees, suppliers and their employees, customers, investors, and the media, to provide information they possess through real-name or anonymous reporting. Once verified, the Company rewards the whistleblowers, jointly supervising and fostering a clean and upright atmosphere.

We strictly handle employees involved in violations in accordance with regulations, and those with serious offenses will be handed over to judicial authorities. By increasing the cost of non-compliance, we urge employees to strictly adhere to the bottom line and maintain a sense of awe.

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 Mailing Address: General Manager Office, No. 158, Nanhu Road Central, Binhu District, Wuxi City, Jiangsu Province

Tax Governance

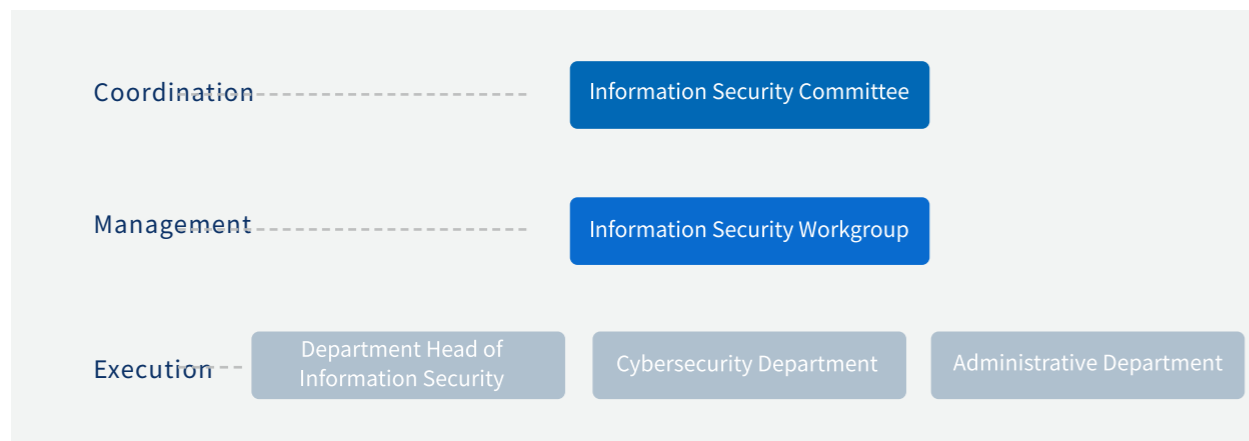
We adopted the *Tax Administration System* to regulate the daily management of tax matters and clarify the responsibilities of tax work. Our financial personnel continuously study tax policies and keep abreast of adjusted tax planning schemes. The finance team is responsible for internal and external communication and timely organization of tax policy explanation and training. The headquarters and subsidiary finance departments conduct self-examinations of daily tax matters at least once every six months, systematically evaluate the standardization and risk points of various tasks, report the self-examination results to the higher-level finance department, and implement improvement measures. When necessary, the Company actively seeks support from professional external third parties to deal with tax inspections from domestic and foreign tax authorities.

In 2023, the Company did not receive any tax violation penalties.



Information Security Management

Safety and reliability are inherent requirements for the digital and smart transformation of enterprises. To win and maintain the trust of partners, we implement transparent, open, and secure principles through responsible systems and measures, and carry out network security and data privacy protection projects. In terms of security management architecture, the Company has established a cross-departmental information security governance structure to supervise and coordinate the collection and use of internal information and data, system operation and maintenance, and technology development and application.



Information Security Committee

Management Documents	
OA Management System	File Encryption Management System
Office Equipment Management System	Network Security Emergency Plan
Internet Usage Management System	Low Voltage Room Management System

Security Control Measures

We adhere to the principle of minimum necessary in information collection for products and services, and implement the principle of least privilege in information access and processing. We require employees to sign the *Information Security Confidentiality Agreement* and convey management requirements to all employees through internal training to provide them with security awareness, guide them to act in accordance with company security policies, and enable them to promptly report security vulnerabilities to avoid property losses for the Company. Any employee found to violate the confidentiality agreement will be subject to penalties such as warnings, disciplinary actions, and compensation.

In 2023, we launched the first phase of the information system reinforcement project, focusing on network security, IT security, integrated systems, and technological applications. We transformed passive defense into active prevention and control, dynamically monitoring system network security. This includes, but is not limited to, tightening firewall access at the boundary, optimizing host security configurations, adding bastion hosts as remote access jump points, conducting periodic vulnerability scans, and controlling the installation of third-party software. Any system of the Company must undergo thorough security review before going live and obtain approval from the group to ensure compliance requirements are met. We conduct internal attack-defense exercises, strengthen risk capability assessment, and continuously track and rectify problems exposed during simulated drills. We also refer to external standards and norms such as ISO 27001 to continuously improve the quality of data security management.



Information Security Training



Honeypot System Control Interface

Key Performance		
2021-2023 Number of significant information leaks from 2021 to 2023	2021-2023 Number of major cybersecurity incidents from 2021 to 2023	2023 Information and network security training coverage
0 case	0 case	100 %

Investor Relations

Customer Relationship Management

Investor Communication

HY SOLAR has always adhered to the original intention of being a listed company and consistently maintains awareness of safeguarding the rights of investors to information and supervision. We consider improving the quality of listing as an essential aspect of our own development, ensuring that information disclosure is truthful, accurate, complete, and timely. The Company voluntarily discloses significant and crucial information related to investors' value judgments and investment decisions. We prioritize investor experience, uphold the principles of concise and clear information disclosure, and enhance mutual trust and understanding with investors. As a result, we obtained a B-grade rating in the 2022-2023 Shanghai Stock Exchange's information disclosure evaluation. Since our listing, we have not encountered any instances of incorrect or omitted information disclosure or regulatory penalties.

Key performance in 2023

Publication of notices
122 copies

SSE Interactive replied
60 times

Investor Communication Channels

Official website's investor relations section	Regular announcements and ad hoc disclosures	Investor hotline and email	Shareholders' general meetings	Performance briefings	Shanghai Stock Exchange E-interaction platform

Investor Returns

We consider ourselves responsible to investors and society, utilizing funds correctly and maintaining objectivity and rationality. We strive for excellence, promote craftsmanship spirit, and enhance competitiveness. We strengthen organizational resilience and improve return efficiency. As a listed company, the protection of shareholders' rights and interests is not only our obligation, but also the cornerstone of our trust in the capital market. In mid-2023, the Company has already paid a cash dividend of CNY0.55 per share (tax included) to all shareholders, totalling CNY317,797,999.75 (tax included).

After comprehensively considering the Company's development stage, future capital requirements and other factors, the Company proposes to pay a cash dividend of CNY0.02 (tax included) per share to all shareholders (except for the Company's special securities account for repurchase) again, with a total of CNY13,677,743.16 (tax included), which is subject to the consideration of the general meeting of shareholders before implementation. Combining the two distribution plans, the Company will pay out a cumulative cash dividend of CNY331,475,742.91 (tax included) for the whole year of FY2023, representing a cash dividend distribution ratio of 44.76%.

As of 2023, the Company has cumulatively distributed cash dividends of CNY2.048 billion since its listing (including the 2023 dividend plan).

Indicators	2020	2021	2022	2023
Social Contribution Value per Share* (CNY)	3.17	7.59	9.91	2.39

*[Calculation Formula] Social Contribution Value per Share = Earnings per Share + (Total Tax Amount + Employee Expenses + Interest Expenses + Total Philanthropic Investment - Social Costs) / Total Shares at the End of the Period

To expand brand influence and accelerate our own development and innovation within the industry, we actively participate in media activities. We seize every face-to-face communication opportunity to gain valuable experience and cooperation, while maintaining close and effective two-way communication with customers and the market. This allows us to continuously showcase the new images of HY SOLAR.



○ SNEC 16th (2023) International Photovoltaic Power Generation and Smart Energy Exhibition & Conference



○ 18th AsiaSolar Photovoltaic and Energy Storage Innovation Exhibition and Cooperation Forum



○ All-energy Australia 2023



○ 15th Chinese Renewable Energy Conference & Exhibition



2023 Clean Energy Technology Capital Forum



2023 Energy Think Tank Summit



Automotive and Optical Storage SiC Application and Supply Chain Upgrade Conference 2023

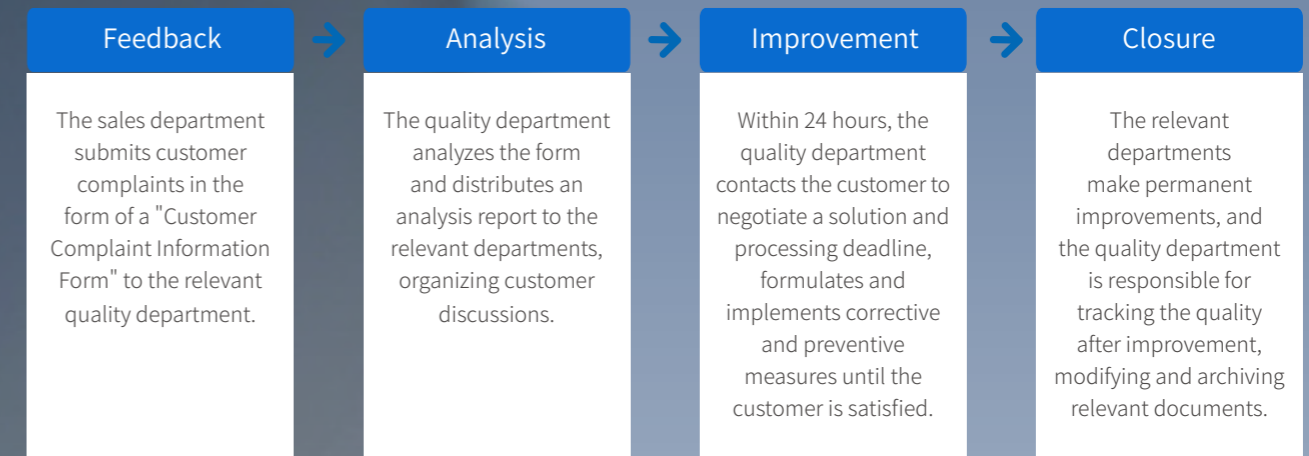


2023 HY SOLAR N-type 210R Module Launch and Media Salon

In addition, the Company has established two dedicated teams to manage customer service on the material and component sides, taking into full consideration the different characteristics of the target customer groups to make customer management more precise. The service team conducts annual customer satisfaction surveys and provides end-to-end customer service following the guidelines of the "Customer Service Management Procedures" to enhance customer satisfaction and build a reputation for quality.



Customer Complaint Handling Procedures



Customer Satisfaction Management



Customer Privacy Protection

We run a privacy compliance process established based on Customer Privacy Protection Management System to ensure the compliant handling of customer data information and maintain data security and confidentiality. This is achieved through standardized data collection and processing procedures, control of data access and permissions, security audits and monitoring, strengthened network security protection, and the formulation of data leakage and security incident emergency response measures.

In 2023, the Company did not receive any complaints or incidents related to customer privacy infringement or loss of customer data.

Independent Verification Statement



To the management and stakeholders of HY SOLAR,

TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch (hereinafter referred to as "TÜV SÜD") has been engaged by HONGYUAN GREEN ENERGY CO., LTD. (hereinafter referred to as "HY SOLAR" or "the Company") to perform an independent third-party verification on HONGYUAN GREEN ENERGY CO., LTD. 2023 Environmental, Social and Governance (ESG) Report (hereinafter referred to as "the Report"). During this verification, TÜV SÜD's verification team strictly abided by the contract signed with HY SOLAR and provided verification regarding the Report in accordance with the provisions agreed by both parties and within the authorized scope stipulated in the contract.

This Independent Verification Statement is based on the data and information collected by HY SOLAR and provided to TÜV SÜD. The scope of verification is limited to the given information. HY SOLAR shall be held accountable for authenticity and completeness of the provided data and information.

Scope of Verification

Time frame of this verification:

- The Report contains the data disclosed by HY SOLAR during the reporting period from January 1st, 2023 to December 31st, 2023, including economic, environmental and social information and data, methods for management of material topics, actions/measures and the Company's sustainability performance during the reporting period.

Physical boundary of this verification:

- The on-site verification sampling took place at below listed location:
158 Nanhu Middle Road, Xuelang Sub-district, Binhu District, Wuxi, Jiangsu Province, China.

Scope of data and information for the verification:

- The scope of verification is limited to the data and information of HY SOLAR and all companies under its operational control covered by the Report.

The following information and data are beyond the scope of this verification:

- Any information and contents beyond the reporting period of the Report; and
- The data and information of HY SOLAR's suppliers, partners and other third parties; and
- The financial data and information disclosed in this Report that have been audited by an independent third party are not verified again herein.

Limitations

- The verification process is conducted in the above scope and place. Sampling and verification are adopted for the data and information in the Report by TÜV SÜD, and only the stakeholders within the Company are interviewed; and
- The Company's standpoint, opinions, forward-looking statements and predictive information as well as the historical data and information before January 1st, 2023 are beyond the scope of this verification.

Basis for the Verification

This verification process was conducted by TÜV SÜD's expert team with extensive experience in the economic, environmental, social and other relevant areas and drew the conclusions thereof. The verification conforms to the following standards:

- *International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements Other than Audits or Reviews of Historical Financial Information, Limited Assurance*
- *TÜV SÜD Procedure of Verification on Sustainability Report*

In order to perform adequate verification in accordance with the contract and provide reasonable verification for the conclusions, the verification team conducted the following activities:

- Preliminary investigation of the relevant information before the verification;
- Confirmation of the presence of the topics with high level of materiality and performance in the Report;
- On-site review of all supporting documents, data and other information provided by HY SOLAR; tracing and verification of key performance information;
- Special interview with the representative of HY SOLAR's management; interviews with the employees related to collection, compilation and reporting of the disclosed information; and
- Other procedures deemed necessary by the verification team.



Verification Conclusions

According to the verification, we believe that the data and information presented in HY SOLAR's Report are objective, factual and reliable, without systematic problems, and can be used by stakeholders.

The verification team has drawn the following conclusions on the Report:

Inclusivity	HY SOLAR has identified the major stakeholders such as employees, shareholders and investors, clients and customers, partners, governments and regulatory authorities, NGO and local communities (including residents, etc., and established a stakeholder communication mechanism to collect the demands of stakeholders on a regular basis.
Materiality	HY SOLAR has established the prioritization process of material topics determination, identified and assessed the priority of the sustainability topics which are highly related to the industry, the Company disclosed the governance structure, management approach as well as sustainability performance in corporate operation, therefore the Report's adherence to materiality principle is guaranteed.
Responsiveness	HY SOLAR has disclosed the management approach and performance of high material topics that stakeholders concern, such as human capital development, occupational safety and health, product quality and safety, sustainable supply chain, respond to climate change, opportunities in clean technology, business ethics, etc., to fully respond to the demands and expectations of stakeholders.
Impact	HY SOLAR monitors and discloses quantitative performance every year, describing the positive and negative impacts on governance, environment, and society. The Company has established a Sustainable Development Management (SDG) Committee, whose members come from middle and senior managers from various sustainable development-related departments. The SDG Committee accepts the supervision of the board of directors and conducts internal democratic consultations from time to time to resolve key issues that restrict sustainable development.

Recommendations on Continuous Improvement

- Management improvement recommendations have been communicated to HY SOLAR management for reference during the verification process.

Statement on Independence and Verification Capability

TÜV SÜD is a trusted partner of choice for safety, security and sustainability solutions. It specialises in testing, certification, auditing and advisory services. Since 1866, TÜV SÜD has remained committed to its purpose of enabling progress by protecting people, the environment and assets from technology-related risks. Today, TÜV SÜD is present in over 1,000 locations worldwide with its headquarters in Munich, Germany. TÜV SÜD has been committed to sustainable development and actively promotes environmental protection related projects. Over the years, TÜV SÜD has been actively expanding its performance in energy management, renewable resources, and electric automobiles, etc., helping its customers meet sustainable development needs.

TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch is one of TÜV SÜD's global branches and has an expert team whose members have professional background and rich industrial experiences.

TÜV SÜD and HY SOLAR are two entities independent of each other and both TÜV SÜD and HY SOLAR and their branches or stakeholders have no conflict of interest. No member of the verification team has business relationship with the Company. The verification is completely neutral. All data and information in the Report are provided by HY SOLAR.

Signature:

On Behalf of TÜV SÜD Certification and Testing (China) Co., Ltd.

Zhu Wenjun
TÜV SÜD Sustainability Authorized Signatory Officer
April 3rd, 2024
Wuxi, China

Note: In case of any inconsistency or discrepancy, the simplified Chinese version "Independent Verification Statement CN" of this verification statement shall prevail, while the English translation is used for reference only.

Appendix

Key Performance Table

Environmental Performance

Energy Utilization

Indicators	Unit	2021	2022	2023
Natural Gas	m3	75,851.16	77,706.16	13,830,709.00
	GJ	2,700.96	2,767.00	492,490.84
Gasoline	L	72,318.00	75,530.16	141,547.74
	GJ	2,261.02	2,361.44	4,425.47
Diesel	L	68,485.00	74,405.00	95,056.23
	GJ	2,456.71	2,669.07	3,409.87
Outsourcing Electricity	KWH	1,203,685,626.00	1,929,794,431.00	2,951,177,915.00
	GJ	4,333,268.25	6,947,259.95	10,624,240.49
Total Energy Consumption	GJ	4,340,686.94	6,955,057.47	11,124,566.67
Proportion of Outsourced Electricity in Total Energy Consumption	%	99.83	99.89	95.50
Energy Consumption Intensity of Output Value (RMB 10,000)	GJ per Output Value (RMB 10,000)	3.98	3.17	9.38

GHG Emissions

Indicators	Emission Source	Unit	2021	2022	2023
Direct (Scope 1) GHG Emissions	Natural Gas	Tons of Carbon Dioxide Equivalent	151.67	155.38	8,238.18
	Gasoline		173.32	181.02	299.31
	Diesel		178.30	193.71	247.20
Energy Indirect (Scope 2) GHG Emissions	Outsourcing Electricity		686,461.91	1,100,561.76	1,683,056.76
Total GHG Emissions (Scope 1 & 2)			686,965.20	1,101,091.88	1,691,841.46
Emission intensity per RMB 10,000 output value	Tons of carbon dioxide equivalent / RMB 10,000 output value		0.63	0.50	1.43

Water Resources Utilization

Indicators	Unit	2021	2022	2023
Total Water Withdrawal	Ton	4,097,940.61	6,824,387.00	9,307,220.88
Total Water Discharge		1,220,395.08	2,038,524.60	4,344,412.00
Total Water Consumption		2,877,545.53	4,785,862.40	4,515,265.88

Solid Waste Disposal

Indicators	Unit	2021	2022	2023
Hazardous Waste	Ton	8.28	10.69	59.64
General Solid Waste		6,200.00	29,100.00	31,760.72
Total Solid Waste		6,208.28	29,110.69	31,820.36

Material Disposal

Indicators	Unit	2021	2022	2023
Total weight of materials that are used to produce and package the organization's primary products (nonrenewable materials)	Ton	3,106.00	3,847.00	3,996.00
Total weight of materials that are used to produce and package the organization's primary products (renewable materials)		1,417.00	3,114.00	1,682.00
Percentage of recycled input materials used to manufacture the organization's primary products and services (%) [Proportion of silicon recycled and reused in the production process of Hongyuan New Material (Baotou) (%)]*	%	46	50	48

* Proportion of silicon recycled and reused in the production process of Hongyuan New Material (Baotou) (%)

GRI Standards Index

Statement of use	HONGYUAN GREEN ENERGY CO., LTD. has reported in accordance with the GRI Standards for the period from 1 January 2023 to 31 December 2023.
GRI 1 Used	GRI 1: Foundation 2021
Applicable GRI Industry Standard(s)	None

GRI STANDARD DISCLOSURE	LOCATION	OMISSION
GRI 2: General Disclosures 2021 The organization and its reporting practices		
2-1 Organizational details	Company Overview	
2-2 Entities included in the organization's sustainability reporting	About This Report	
2-3 Reporting period, frequency and contact point	About This Report	
2-4 Restatements of information	There is no restatement of information in this report.	
2-5 External assurance Activities and workers		
Activities and workers		
2-6 Activities, value chain and other business relationships	Company Overview	
2-7 Employees	Company Overview	
2-8 Workers who are not employees	Company Overview	
Governance		
2-9 Governance structure and composition	Organizational Structure Corporate Governance	
2-10 Nomination and selection of the highest governance body	Corporate Governance	
2-11 Chair of the highest governance body	Corporate Governance	
2-12 Role of the highest governance body in overseeing the management of impacts	Sustainability Management Framework	
2-13 Delegation of responsibility for managing impacts	Sustainability Management Framework	
2-14 Role of the highest governance body in sustainability reporting	Sustainability Management Framework	
2-15 Conflicts of interest	Risk Management	
2-16 Communication of critical concerns	Risk Management	

GRI STANDARD DISCLOSURE	LOCATION	OMISSION
2-17 Collective knowledge of the highest governance body	Sustainability Management Framework	
2-18 Evaluation of the performance of the highest governance body	Corporate Governance	
2-19 Remuneration policies	Corporate Governance	
2-20 Process to determine remuneration	Corporate Governance	
2-21 Annual total compensation ratio	/	[Confidentiality constraints] We are unable to calculate for the time being because it involves the privacy of overseas employees.
Strategy, policies and practices		
2-22 Statement on sustainable development strategy	Sustainability Management Framework	
2-23 Policy commitments	Corporate Governance	
2-24 Embedding policy commitments	Risk Management	
2-25 Processes to remediate negative impacts	Risk Management	
2-26 Mechanisms for seeking advice and raising concerns	Risk Management	
2-27 Compliance with laws and regulations	Risk Management	
2-28 Membership associations	Company Overview	
Stakeholder engagement		
2-29 Approach to stakeholder engagement	Stakeholder Engagement	
2-30 Collective bargaining agreements	Employee Rights	
GRI 3: Material Topics 2021		
3-1 Process to determine material topics	Materiality Assessment	
3-2 List of material topics	Materiality Assessment	
GRI 201: Economic Performance 2016		
3-3 Management of material topics	Refer to annual report	
201-1 Direct economic value generated and distributed	Refer to annual report	
201-2 Financial implications and other risks and opportunities due to climate change	Climate Actions	
201-3 Defined benefit plan obligations and other retirement plans	Refer to annual report	
201-4 Financial assistance received from government	Refer to annual report	
GRI 202: Market Presence 2016		
3-3 Management of material topics	Refer to annual report	

GRI STANDARD DISCLOSURE	LOCATION	OMISSION
202-1 Ratios of standard entry level wage by gender compared to local minimum wage	/	[Confidentiality constraints] There are statistical difficulties involving overseas employees. However, the starting salaries are all higher than the local minimum wage.
202-2 Proportion of senior management hired from the local community	Refer to annual report	
GRI 203: Indirect Economic Impacts 2016		
3-3 Management of material topics	Community and Charity Contributions	
203-1 Infrastructure investments and services supported	Community and Charity Contributions	
203-2 Significant indirect economic impacts	Community and Charity Contributions	
GRI 204: Procurement Practices 2016		
3-3 Management of material topics	Sustainable Supply Chain	
204-1 Proportion of spending on local suppliers	Sustainable Supply Chain	
GRI 205: Anti-corruption 2016		
3-3 Management of material topics	Risk Management	
205-1 Operations assessed for risks related to corruption	Risk Management	
205-2 Communication and training about anti-corruption policies and procedures	Risk Management	
205-3 Confirmed incidents of corruption and actions taken	Risk Management	
GRI 206: Anti-competitive Behavior 2016		
3-3 Management of material topics	Risk Management	
206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Risk Management	
GRI 207: Tax 2019		
207-1 Approach to tax	Risk Management	
207-2 Tax governance, control, and risk management	Risk Management	
207-3 Stakeholder engagement and management of concerns related to tax	Risk Management	
207-4 Country-by-country reporting	Risk Management	
GRI 301: Materials 2016		
3-3 Management of material topics	Product Lifecycle Management	
301-1 Materials used by weight or volume	Key Performance Table - Environment	
301-2 Recycled input materials used	Product Lifecycle Management	
301-3 Reclaimed products and their packaging materials	Product Lifecycle Management	

GRI STANDARD DISCLOSURE	LOCATION	OMISSION
GRI 302: Energy 2016	Energy Management	
3-3 Management of material topics	Energy Management	
302-1 Energy consumption within the organization	Key Performance Table - Environment	
302-2 Energy consumption outside of the organization	/	[Information unavailable/ incomplete] Not collected energy consumption related to upstream and downstream categories and activities yet.
302-3 Energy intensity	Key Performance Table - Environment	
302-4 Reduction of energy consumption	Key Performance Table - Environment	
302-5 Reductions in energy requirements of products and services	Energy Management	
GRI 303: Water and Effluents 2018		
3-3 Management of material topics	Water Resource Management	
303-1 Interactions with water as a shared resource	Water Resource Management	
303-3 Management of water discharge-related impacts	Environment Compliance	
303-3 Water withdrawal	Key Performance Table - Environment	
303-4 Water discharge	Key Performance Table - Environment	
303-5 Water consumption	Key Performance Table - Environment	
GRI 304: Biodiversity 2016		
304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	/	[Not applicable] The development, construction, and site selection of all the Company's base projects are not located in or near natural resource conservation areas or areas with rich biodiversity.
304-2 Significant impacts of activities, products and services on biodiversity	Ecological Conservation	
304-3 Habitats protected or restored	/	[Not applicable] The development, construction, and site selection of all the Company's base projects are not located in or near natural resource conservation areas or areas with rich biodiversity.
304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	/	[Not applicable] The development, construction, and site selection of all the Company's base projects are not located in or near natural resource conservation areas or areas with rich biodiversity.
GRI 305: Emissions 2016		
3-3 Management of material topics	Climate Actions	
305-1 Direct (Scope 1) GHG emissions	Key Performance Table - Environment	
305-2 Energy indirect (Scope 2) GHG emissions	Key Performance Table - Environment	
305-3 Other indirect (Scope 3) GHG emissions	/	[Information unavailable/ incomplete] Not collected data on its other indirect (Scope 3) GHG emissions yet.
305-4 GHG emissions intensity	Key Performance Table - Environment	
305-5 Reduction of GHG emissions	Climate Actions	

GRI STANDARD DISCLOSURE	LOCATION	OMISSION
305-6 Emissions of ozone-depleting substances (ODS)	/	[Not Available]Not involve ozone-depleting substances (ODS) emissions in its processes, products and services
305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Waste and Hazardous Emissions Management	
GRI 306: Waste 2020		
3-3 Management of material topics	Waste and Hazardous Emissions Management	
306-1 Waste generation and significant waste-related impacts	Waste and Hazardous Emissions Management	
306-2 Management of significant waste-related impact	Waste and Hazardous Emissions Management	
306-3 Waste generated	Key Performance Table - Environment	
306-4 Waste diverted from disposa	Key Performance Table - Environment	
306-5 Waste directed to disposal	Key Performance Table - Environment	
GRI 308: Supplier Environmental Assessment 2016		
3-3 Management of material topics	Sustainable Supply Chain	
308-1 New suppliers that were screened using environmental criteria	Sustainable Supply Chain	
308-2 Negative environmental impacts in the supply chain and actions taken	Sustainable Supply Chain	
GRI 401: Employment 2016		
3-3 Management of material topics	Employee Rights	
401-1 New employee hires and employee turnover	Employee Rights	
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employee	Employee Rights	
401-3 Parental leave	Employee Rights	
GRI 402: Labor/Management Relations 2016		
3-3 Management of material topics	Employee Rights	
402-1 Minimum notice periods regarding operational changes	Employee Rights	
GRI 403: Occupational Health and Safety 2018		
3-3 Management of material topics	Occupational Health and Safety	
403-1 Occupational health and safety management system	Occupational Health and Safety	
403-2 Hazard identification, risk assessment, and incident investigation	Occupational Health and Safety	
403-3 Occupational health services	Occupational Health and Safety	

GRI STANDARD DISCLOSURE	LOCATION	OMISSION
403-4 Worker participation, consultation, and communication on occupational health and safety	Occupational Health and Safety	
403-5 Worker training on occupational health and safety	Occupational Health and Safety	
403-6 Promotion of worker health	Occupational Health and Safety	
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Occupational Health and Safety	
403-8 Workers covered by an occupational health and safety management system	Occupational Health and Safety	
403-9 Work-related injuries	Occupational Health and Safety	
403-10 Work-related ill health	Occupational Health and Safety	
GRI 404: Training and Education 2016		
3-3 Management of material topics	Human Capital Development	
404-1 Average hours of training per year per employee	Human Capital Development	
404-2 Programs for upgrading employee skills and transition assistance programs	Human Capital Development	
404-3 Percentage of employees receiving regular performance and career development reviews	Lit up 2023	
GRI 405: Diversity and Equal Opportunity 2016		
3-3 Management of material topics	Employee Rights	
405-1 Diversity of governance bodies and employees	Corporate Governance	
405-2 Ratio of basic salary and remuneration of women to men	/	[Information unavailable / incomplete] We insist on equal pay for equal work. At present, due to the large number of production bases, it is impossible to count accurately for the time being.
GRI 406: Non-discrimination 2016		
3-3 Management of material topics	Employee Rights	
406-1 Incidents of discrimination and corrective actions taken	Employee Rights	
GRI 407: Freedom of Association and Collective Bargaining 2016		
3-3 Management of material topics	Employee Rights	
407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Employee Rights	
GRI 408: Child Labor 2016		
3-3 Management of material topics	Employee Rights	
408-1 Operations and suppliers at significant risk for incidents of child labor	Employee Rights	
GRI 409: Forced or Compulsory Labor 2016		
3-3 Management of material topics	Employee Rights	

GRI STANDARD DISCLOSURE	LOCATION	OMISSION
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Employee Rights	
GRI 410: Security Practices 2016		
3-3 Management of material topics	Employee Rights	
410-1 Security personnel trained in human rights policies or procedures	Employee Rights	
GRI 411: Rights of Indigenous Peoples 2016		
3-3 Management of material topics	Community and Charity Contributions	
411-1 Incidents of violations involving rights of indigenous peoples	Community and Charity Contributions	
GRI 413: Local Communities 2016		
3-3 Management of material topics	Community and Charity Contributions	
413-1 Operations with local community engagement, impact assessments, and development programs	Community and Charity Contributions	
413-2 Operations with significant actual and potential negative impacts on local communities	Community and Charity Contributions	
GRI 414: Supplier Social Assessment 2016		
3-3 Management of material topics	Sustainable Supply Chain	
414-1 New suppliers that were screened using social criteria	Sustainable Supply Chain	
414-2 Negative social impacts in the supply chain and actions taken	Sustainable Supply Chain	
GRI 415: Public Policy 2016		
3-3 Management of material topics	Risk Management	
415-1 Political contributions	/	[Not applicable] We do not engage in political contributions.
GRI 416: Customer Health and Safety 2016		
3-3 Management of material topics	Comprehensive Quality Management	
416-1 Assessment of the health and safety impacts of product and service categories	Comprehensive Quality Management	
416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Comprehensive Quality Management	
GRI 417: Marketing and Labeling 2016		
3-3 Management of material topics	Risk Management	
417-1 Requirements for product and service information and labeling	Risk Management	
417-2 Incidents of non-compliance concerning product and service information and labeling	Risk Management	
417-3 Incidents of non-compliance concerning marketing communications	Risk Management	
GRI 418: Customer Privacy 2016		
3-3 Management of material topics	Risk Management	
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Risk Management	

Sustainability Accounting Standards Board (SASB) Content Index

DISCLOSURE			LOCATION
TOPIC	CODE	ACCOUNTING METRIC	
Energy Management in Manufacturing	RR-ST-130a.1	Total energy consumed	Key Performance Table - Environment
		Percentage grid electricity	Key Performance Table - Environment
		Percentage renewable	Key Performance Table - Environment
Water Management in Manufacturing	RR-ST-140a.1	Total water withdrawn	Key Performance Table - Environment
		Total water consumed	Key Performance Table - Environment
	RR-ST-140a.2	Description of water management risks and discussion of strategies and practices to mitigate those risks	Waste and Hazardous Emissions Management
Hazardous Waste Management	RR-ST-150a.1	Amount of hazardous waste generated, percentage recycled	Waste and Hazardous Emissions Management
		Percentage recycled	Waste and Hazardous Emissions Management
	RR-ST-150a.2	Number of reportable spills	Waste and Hazardous Emissions Management
		Aggregate quantity of reportable spills	Waste and Hazardous Emissions Management
		Quantity of spills recovered	Waste and Hazardous Emissions Management
Ecological Impacts of Project Development	RR-ST-160a.1	Number of project delays related to ecological impacts	/
		Duration of project delays related to ecological impacts	/
	RR-ST-160a.2	Description of efforts in solar energy system project development to address community and ecological impacts	/
Management of Energy Infrastructure Integration & Related Regulations	RR-ST-410a.1	Description of risks associated with integration of solar energy into existing energy infrastructure and discussion of efforts to manage those risks	Energy Management
		RR-ST-410a.2	Description of risks and opportunities associated with energy policy and its impact on the integration of solar energy into existing energy infrastructure
Product End-of life Management	RR-ST-410b.1	Weight of reusable or recyclable items of product sold	/
		Weight of product sold	/
		Percentage of products sold that are recyclable or reusable	/
	RR-ST-410b.2	Weight of end-of-life material recovered	Key Performance Table - Environment
		Weight of end-of-life material	Key Performance Table - Environment
		Percentage recycled	Key Performance Table - Environment
	RR-ST-410b.3	Percentage of products by revenue that contain IEC 62474 declarable substances, arsenic compounds, antimony compounds, or beryllium compounds	/
RR-ST-410b.4	Description of approach and strategies to design products for high-value recycling	/	
Materials Sourcing	RR-ST-440a.1	Description of the management of risks associated with the use of critical materials	Product Lifecycle Management
	RR-ST-440a.2	Description of the management of environmental risks associated with the polysilicon supply chain	Product Lifecycle Management
Acticity	RR-ST-000.A	Total capacity of photovoltaic (PV) solar modules produced	Clean Energy Opportunities
	RR-ST-000.B	Total capacity of completed solar energy systems	Clean Energy Opportunities
	RR-ST-000.C	Total project development assets	/

About This Report

This report aims to fairly and objectively present the methods, practices and performance of HONGYUAN GREEN ENERGY CO., LTD.(hereinafter referred to as "HY SOLAR", "the Company" or "we") and its subsidiaries in environmental, social and governance (ESG) in 2023, as well as other key indicators that reflect the Company's significant impact on the environment and society. Unless otherwise specified, financial data in this report are all in CNY. The reporting cycle is annual, with the last report published in September 2023.

Time Frame

This report covers the period from January 1, 2023 to December 31, 2023, with a small amount of data outside of this time frame included.

Organizational Boundary

Unless otherwise stated, the disclosure boundary of this report is consistent with the 2023 Annual Report of HONGYUAN GREEN ENERGY CO., LTD. For ease of presentation, HY SOLAR and its subsidiaries are referred to as abbreviations in the report, with the following correspondences:

Name	Abbreviation
HONGYUAN GREEN ENERGY CO.,LTD.	HY SOLAR
Hongyuan New Material (Baotou) Co., Ltd.	Hongyuan New Material (Baotou)
Hongyuan Energy Technology (Baotou) Co., Ltd.	Hongyuan Energy
Hongyuan New Material (Xuzhou) Co., Ltd.	Hongyuan New Material (Xuzhou)
Wuxi Hongyuan Semiconductor Materials Technology Co., Ltd.	Hongyuan Semic
Hongyuan Solar (Wuxi) Co., Ltd.	HY SOLAR (Wuxi)
Shanghai YuanTech New Energy Co., Ltd.	Shanghai YuanTech
YuanTech Solar Co., Ltd.	YuanTech Solar



Basis for compilation

This report complies with the Guidelines of the Shanghai Stock Exchange for Self-regulation of Listed Companies No. 1—Standardized Operations, and the Global Reporting Initiative (GRI) Standards 2021 for sustainability reporting.

It is compiled by referring to the Sustainability Accounting Standards Board (SASB) Standards, the United Nations Sustainable Development Goals (SDGs) 2030, and the Ten Principles of the United Nations Global Compact (UNGC).

External Assurance

In order to ensure the authenticity and reliability of the report, the Company has engaged TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch to carry out the assurance of the report in accordance with the "International Standard on Assurance Engagements 3000 (Revised) - Assurance Engagements Other Than the Audit or Review of Historical Financial Information" (ISAE 3000), and has issued the assurance opinion of "Limited Assurance", which is shown on the page of the "Statement of Assurance" of this report.

How to Obtain

This report is published in simplified Chinese and English. You can log in to the website of the Shanghai Stock Exchange (www.sse.com.cn) or HY SOLAR (www.hysolar.com), or follow the WeChat official account of HY SOLAR to download the electronic version.

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