

NEXT

TECHNOLOGIES TO DECARBONIZATION,
CHANGES TO CHALLENGES

2023 SUSTAINABILITY REPORT

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Trust

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About the Report

2023 Sustainability Report (hereinafter referred to as "the Report") constitutes the third Sustainability/Environmental, Social, and Governance (ESG) report issued by GCL System Integration Technology Co., Ltd. (hereinafter referred to as "GCL SI", "the Company", or "we"), aiming to disclose and showcase the Company's progress in sustainable development to our stakeholders.

The Report is published on an annual basis, aligning with the fiscal year. The reporting period is from January 1, 2023, to December 31, 2023 (hereinafter referred to as the "Reporting Period") and provides a detailed account of GCL SI's commitments, actions, and performance in economic and ESG domains during this timeframe. To reflect consistency, comparability and completeness, contents of the Report refer back to previous years or cover the year 2024 as appropriate.

Scope of the Report

The organizational scope of the Report encompasses the listed entity of GCL SI. In cases where the specific data scope deviates from the reporting scope, such distinctions will be explicitly stated in the text.

Reporting Standards and Guidelines

The Report complies with the requirements of Shenzhen Stock Exchange Guidance on Standardized Operation of Companies Listed in Shenzhen Stock Exchange. In addition, the Report refers to the latest Global Sustainability Standards Committee Sustainable Development Reporting Standards (GRI Standards, hereinafter referred to as "GRI") of Global Sustainability Standards Board and the reporting disclosure requirements of Sustainable Development Goals (SDGs) Enterprise Action Guidance.

Data Sources

The data utilized in the Report originates from various sources, including raw operational data from the Company, internal statistical reports, annual financial data, publicly available data from government agencies, third-party questionnaire surveys, or interviews. Financial data presented in the Report is denominated in RMB. In instances where discrepancies arise between financial data in the Report and that in our financial statements, the latter shall prevail.

Description Guidelines

For ease of reference and readability, the following table presents the full names and corresponding abbreviations of affiliated companies in the Report:

Full Name of Affiliated Company	Abbreviation
Hefei GCL System Integration New Energy Technology Co., Ltd.	Hefei GCL SI
Funing GCL System Integration Technology Co., Ltd.	Funing GCL SI
Wuhu GCL System Integration New Energy Technology Co., Ltd.	Wuhu GCL SI
Xuzhou Xinyu PV Technology Co., Ltd.	Xuzhou Xinyu
GCL Green Energy System Technology Co., Ltd.	GCL Green Energy
GCL Energy Storage Technology (Suzhou) Co., Ltd.	GCL Energy Storage
GCL Energy Engineering Co., Ltd.	GCL Energy Engineering

Report Reliability Assurance

The Company and the Board of Directors of GCL System Integration Technology Co., Ltd. jointly commit that there are no false records, misleading statements, or material omissions in the content of the Report. We are fully responsible for the authenticity, accuracy, and completeness of the information contained herein.

Format of Report Release

The online version of the Report is accessible on the official website of GCL System Integration Technology Co., Ltd. (<https://www.gclsi.com>) and the CNINFO website(<http://www.cninfo.com.cn>).



About GCL SI

Company Overview

GCL System Integration Technology Co., Ltd. (002506.SZ) strives to be the world's leading provider of one-stop smart optical storage services. Adhering to the concept of "bringing green power to life", we fully integrate low-carbon development into business operations in the renewable energy sector which we are devoted to. We are primarily engaged in the R&D, design, production, sales and one-stop services of high-efficiency photovoltaic (PV) cells and modules, Engineering Procurement Construction (EPC), integrated energy storage systems and related products.

In 2023, GCL SI was committed to driving innovative corporate development with clean energy technologies and embarked on the journey to sustainable development under the strategic guidance of **technological, digital and green GSL SI**.

Corporate Culture



Mission

Focus on green development and continuously improve the living environment for human beings



Vision

Become a respected global leader in new energy and clean energy



Value

Value-led, Innovation-driven, Arduous, Collaborative



Culture

Concise, Efficient, Disciplined, Dynamic



Corporate Spirit

Entrepreneurship, Innovation, Competition, Transcendence

Company History

1990

- GCL Group was established.



2015

- GCL Group joined hands with China Great Wall Asset Management Co., Ltd., to reorganize Shanghai Chaori Solar Energy Science & Technology Co., Ltd. (*ST Chaori) After the reorganization, *ST Chaori was renamed as "GCL System Integration Technology Co., Ltd." and resumed trading under the stock code of 002506.
- Through significant asset restructuring, GCL SI acquired module manufacturers of Jiangsu Dongsheng and Zhangjiagang Integration.



2016

- GCL SI actively explored the overseas market and accelerated globalization efforts by establishing branches in 5 countries and regions, including Japan, India, North America and Australia, and representative offices in 7 countries and regions, including Thailand, the Middle East, South Africa and North Africa.

2017

- GCL SI enhanced the production capacity of high-efficiency cells. Specifically, the wholly-owned subsidiary, Xuzhou Xinyu, achieved a production capacity of 2GW, providing strategic support for the Company's differentiated products.

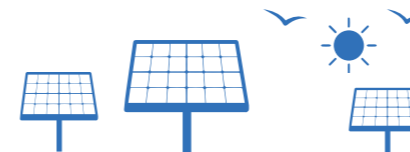
2021

- GCL SI launched 182mm and 210mm series of large-sized modules, with product performance enhanced.
- GCL SI was actively engaged in the "PV+" business expansion, and launched the new-type product of PV and thermal hybrid modules (PVT).



2020

- GCL SI optimized the capacity layout by investing in the development of 60GW modules and the construction of supporting industrial bases in Hefei. The Company satisfied both mainstream and emerging market demands for large-sized PV modules with centralized, professional and automated operations on an ultra large scale.



2019

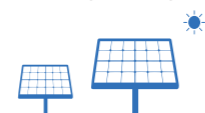
- The EPC business of GCL Energy Engineering gained strong momentum, making a breakthrough in the growth of the overseas EPC business.

2018

- The going-global strategy facilitated our business presence in more than 40 countries and regions worldwide, showing remarkable success.
- GCL SI partnered with Alibaba Cloud to build the first large-scale customized PV module workshop based on the big data platform "Cloud Intelligence" in the industry, integrating information technologies such as the Internet and the Internet of Things into the production process of PV cell modules.

2022

- GCL SI took an all-out effort to upgrade the capacity structure of large-sized modules. The first phase of Hefei GCL SI Module Base - 15GW project achieved full production capacity.
- Funing GCL SI was awarded the title of "National Green Factory".
- The strategy of GCL Energy Engineering was adjusted, transforming and upgrading to a operation model of multi-format system integration services, including Source-Grid-Load-Storage integration and energy storage.



2023

- GCL SI accelerated the layout of high-end production capacity. Wuhu GCL SI 20GW high-efficiency N-type TOPCon (Tunnel Oxide Passivated Contact) cell project (the first phase of 10GW) and Funing GCL SI 12GW high-efficiency PV module project reached full capacity.
- GCL SI joined the United Nations Global Compact (UNGC).
- GCL SI was awarded the Certification of IEC61730: 2023 New Standard by TÜV Rheinland.
- GCL SI was rated at A Grade in Wind ESG Rating.





2023 Sustainability Performance

2023 Wind ESG Rating

A Grade

Wind

2023 Listed Companies

ESG Pioneer Case

Securities Daily

2023 Outstanding ESG Practice Cases

Dual-carbon Pioneer of the Year

NetEase Economic

Taihu Lake Green Excellence Award

Gold Award

Committee of the Chinese Renewable Energy Conference & Exhibition

The 17th (2023) Crystal Ball Awards
Most Socially Responsible (ESG) Listed Company

Weekly on Stocks

Economic

Revenue

RMB **15,967.61** million

Increased by **91.15%**
 compared to 2022

R&D expenses

RMB **146.40** million

Increased by **80.83%**
 compared to 2022

Net income attributable to shareholders

RMB **157.72** million

Increased by **142.24%**
 compared to 2022

Renewable energy-related revenue as a percentage of total revenue

100%

Basic earnings per share

0.027 RMB/share

Increased by **145.45%**
 compared to 2022

Environmental

Production-based electricity consumption intensity

25.38 MWh/MW

Production-based water consumption intensity

88.35 tonnes/MW

Production-based GHG emission intensity (market-based)

13.41 tCO₂e/MW

Non-hazardous waste recycling rate

99.93%

Hefei GCL SI, Funing GCL SI, and Xuzhou Xinyu factories all obtained the **ISO 14001** Environmental Management System Certification

Hefei GCL SI, Funing GCL SI factories obtained the **ISO 50001** Energy Management System Certification

Governance

Proportion of independent directors

33.33%

Business ethics training coverage rate

100%

Anti-corruption training coverage rate

100%

Business ethics audit projects completed

4 projects

Social

Number of employees

6,256

Increased **2,736**
 compared to 2022

Number of minority employees

88

Increased **58**
 compared to 2022

Average training hours per employee

47 hours

Increased **10** hours
 compared to 2022

Total Recordable Incident Rate

0.14

Proportion of new suppliers obtained the ISO 14001 Environmental Management System Certification

92%

Proportion of new suppliers obtained the ISO 9001 Quality Management System Certification

95%

Hefei GCL SI, Funing GCL SI, and Xuzhou Xinyu all obtained the **ISO 45001** Occupational Health and Safety Management System Certification.

Funing GCL SI has been certified with the Social Accountability 8000 International Standard (**SA8000**)

Sustainability Strategy and Governance

Sustainability Strategy

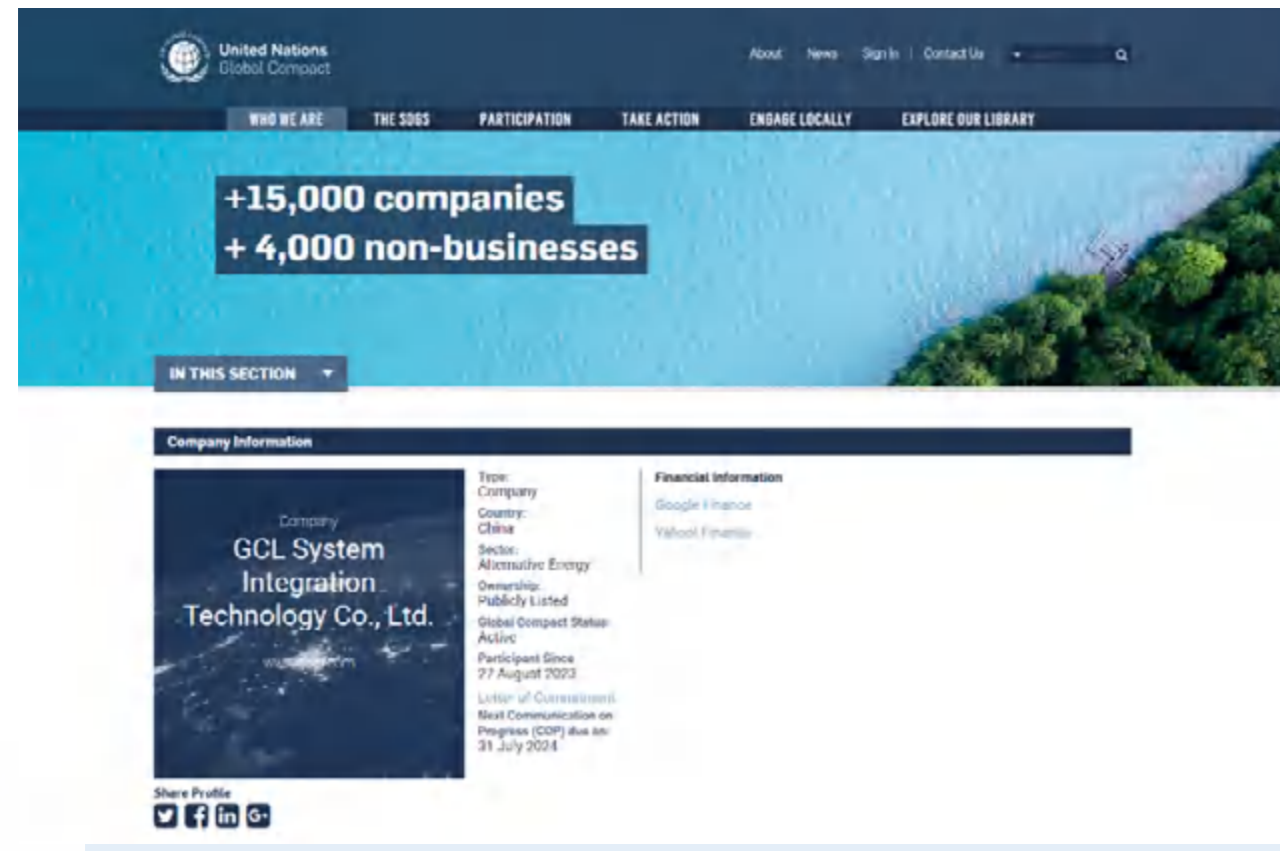
GCL SI not only injects powerful impetus into the global energy transition but also attaches great importance to the clean energy transition of the Company's own manufacturing and operational processes, striving to minimize the environmental footprint across the Company's operations and value chain. We utilize the power of digital technology to implement the guiding principle of "Carbon Emissions Reduction with Technologies", leveraging innovation to drive deep decarbonization and reshape the harmonious coexistence between society, economy, and environment. Meanwhile, the PV industry evolves rapidly, necessitating that we cultivate an aptitude for "Responses to Changes," agilely responding to shifting market demands and vigorously promoting high-quality upgrades in our production capacity structure to enhance the Company's core competitiveness.

In 2023, GCL SI developed the NEXT sustainable development strategy framework. With a vision of "Building a PV ecosystem with adhering to sustainability in both business development and social development". We actively collaborate with all stakeholders to build a harmonious solar ecosystem. Integrating our business development strategy, key national strategic plans, and the United Nations Sustainable Development Goals, we have established four strategic pillars: Nature, Equity, Excellence, and Trust—anticipating a low-carbon and sustainable future that we will collectively bring to fruition.



<p>Nature</p> <p>Actively respond to climate change, enhance water management efficiency and protect the ecosystem for green development</p> <ul style="list-style-type: none"> Response to Climate Change Water Stewardship Energy Efficiency and Renewable Energy Management Emissions and Waste Management Environmental Compliance and Ecological Protection 	<p>Equity</p> <p>Create a diversified, inclusive, safe and healthy workplace, actively fulfill social responsibilities, create and share sustainable value</p> <ul style="list-style-type: none"> Labor Rights Protection Occupational Health and Safety Diversity, Equity and Inclusion Community Contribution Employee Training and Development 	<p>EXcellence</p> <p>Adhere to technology-driven innovation, optimize product and service quality to meet customers' demands and enhance their satisfaction, and fuel global transition to greener energy</p> <ul style="list-style-type: none"> Innovation-driven Customer Service Industrial Cooperation and Exchange Information Security and Privacy Protection Product Responsibility 	<p>Trust</p> <p>Uphold the concept of mutual trust, optimize corporate governance, adhere to business ethics, build a responsible supply chain, and create a foundation for honest, transparent and stable management</p> <ul style="list-style-type: none"> Corporate Governance Business Ethics Risk Management Responsible Supply Chain Anti-bribery and Corruption 
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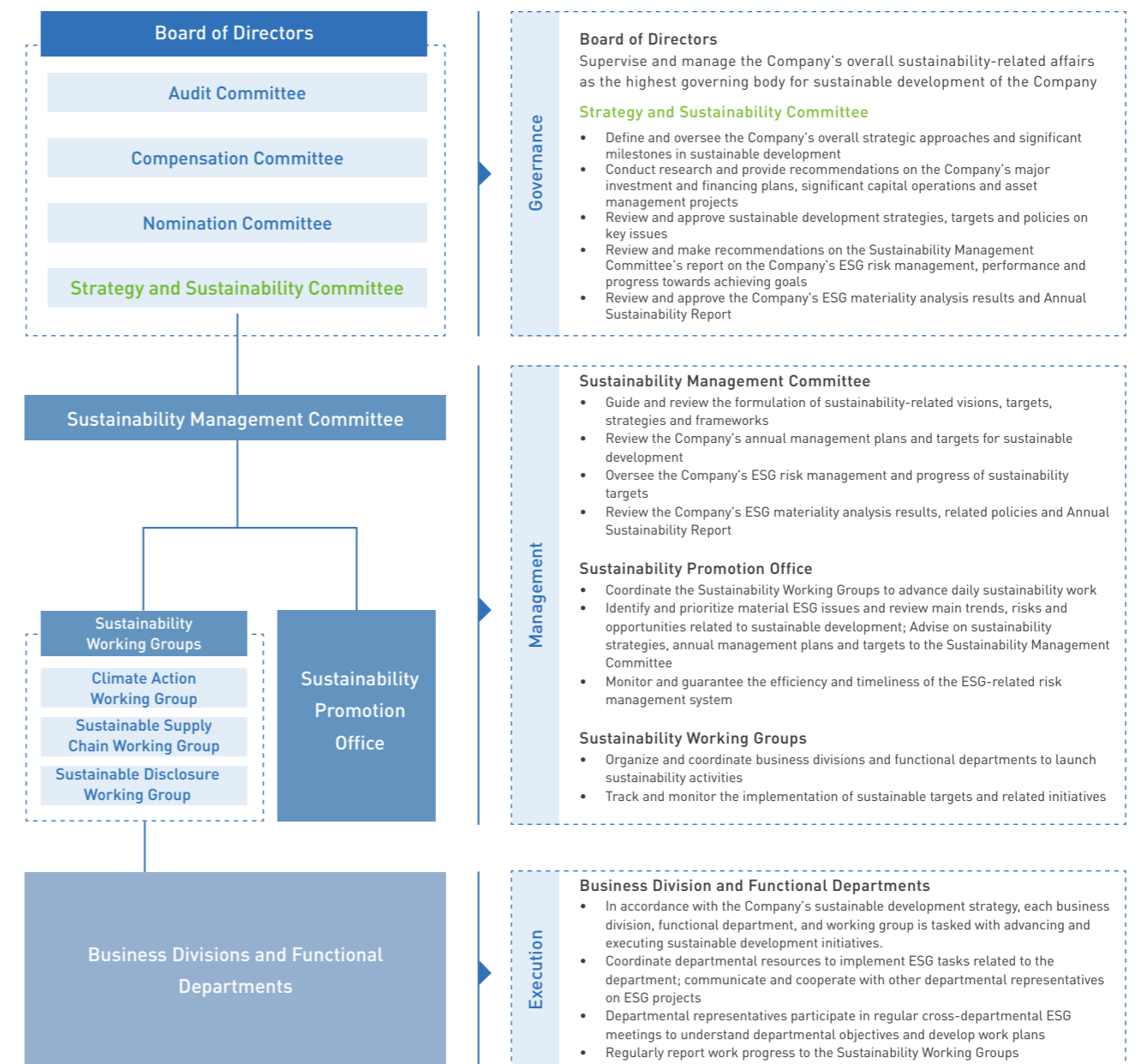
In August 2023, GCL SI joined the UNGC, committing to 10 principles including human rights, labor, environment and anti-corruption. From our initial commitment to joining the initiative, we will persistently advance the sustainability agenda, thereby strengthening our competitiveness in the global market. Simultaneously, we will make contributions to clean energy development and the global transition to net-zero emissions.



GCL SI officially joined the UNGC

Sustainability Governance






Integrating sustainability concepts into corporate governance, GCL SI has established a three tiered governance structure- "governance - management - execution". The Company included sustainable development into the responsibility scope of the Strategy Committee under the Board of Directors ("the Board") and renamed it as the "Strategy and Sustainability Committee", responsible for monitoring and framing the Company's overall sustainability and climate strategy, objectives and related major issues. Under the Committee, the Company had also established the Sustainability Management Committee, the Sustainability Promotion Office and the Sustainability Working Groups at the management level. The Company's business divisions and functional departments operate at the executive level, holding responsibility for the precise execution of ESG matters and the attainment of associated goal.



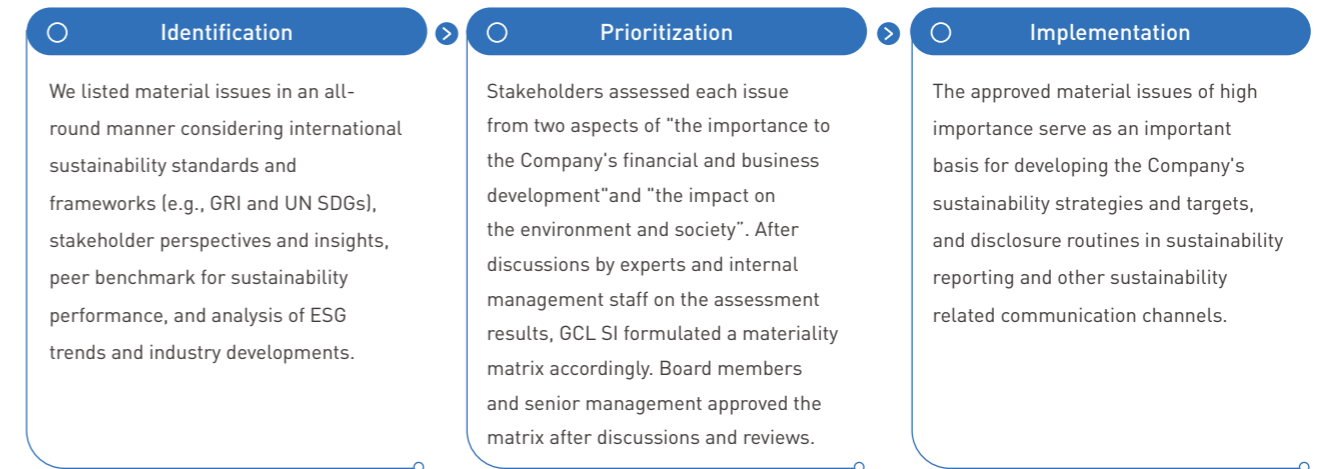
Stakeholder Communication

GCL SI maintains ongoing communication with stakeholders in order to stay updated with their expectations and regularly exchange opinions on fulfilling such expectations. During the Reporting Period, we identified 11 types of stakeholders considering the Company's characteristics and industry trends, including employees, shareholders, investors, suppliers, customers, partners, non-government organizations, governments and regulators, communities, media and financial institutions. Among them, employees, customers, suppliers, shareholders, investors, governments and regulators constituted our key stakeholders.

Engagement with Key Stakeholders and Our Responses

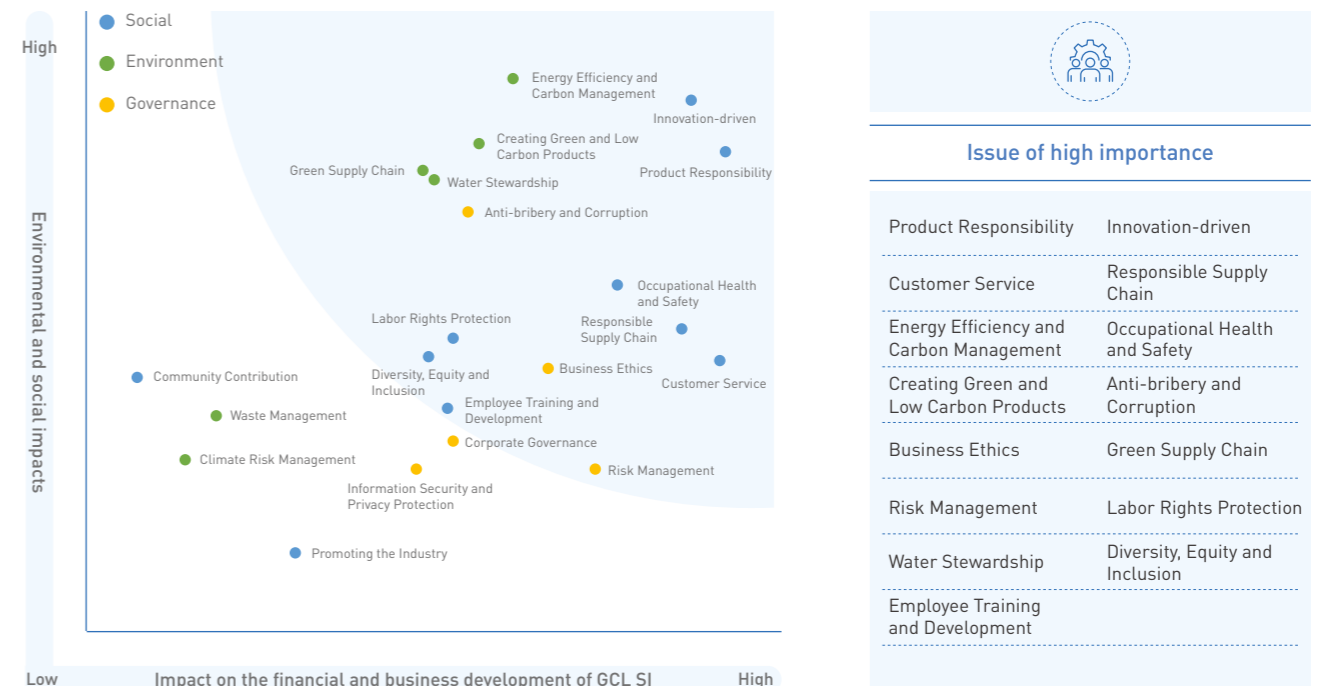
Key Stakeholders	Issues of Concern	Responses and Actions
 <p>Employees</p>	<ul style="list-style-type: none"> • Anti-corruption and business ethics • Intellectual property rights protection • Employees' rights and interests and satisfaction • Customer service and satisfaction • Occupational health and safety 	<ul style="list-style-type: none"> • Trade union/Workers' congress • Employee training • Employee activities • Contracts • Employee benefits
 <p>Customers</p>	<ul style="list-style-type: none"> • Product quality management • Technology and product innovation • Customer service and satisfaction • Employee training and development • Compliant operations 	<ul style="list-style-type: none"> • Daily operations and interactions • Hotline service • Customer satisfaction surveys • Quality complaint management • Information security and privacy protection
 <p>Suppliers</p>	<ul style="list-style-type: none"> • Risk management • Technology and product innovation • Customer and service satisfaction • Compliant operations • Intellectual property rights protection 	<ul style="list-style-type: none"> • Supplier empowerment • Supplier assessment • Green supply chain
 <p>Shareholders and investors</p>	<ul style="list-style-type: none"> • Product quality management • Technology and product innovation • Risk management • Compliant operations • Customer service and satisfaction 	<ul style="list-style-type: none"> • Shareholders' meeting • Information disclosure • Press releases and announcements • Reasonable profit distribution • Investor interaction channels • Intellectual property management system • Investor on-site interviews
 <p>Governments and regulators</p>	<ul style="list-style-type: none"> • Product quality management • Technology and product innovation • Climate risk management • Green supply chain 	<ul style="list-style-type: none"> • Institutional review • Official correspondence • Policy implementation • Information disclosure • Compliance with laws and regulations

The Company believes that sustainable development lies in satisfying and transcending expectations and needs of all key stakeholders. Material issues exert a significant impact on the Company's ESG and financial performance. They may also influence the assessments and decisions of both internal and external stakeholders. In 2023, the Company took a comprehensive review on material ESG issues and assessed their priority. The process of materiality assessment was as follows:



Stakeholder surveys and materiality assessment are conducted on a regular basis to align with current sustainability-related trends and corporate business development. In 2023, we assessed the importance of 22 issues and collected 178 valid questionnaires. Based on the survey results, we drew up the materiality matrix (as shown below) and identified 16 material issues of high importance. All of the 16 material issues of high importance are addressed in the Report.

2023 GCL SI Material Issues Matrix



Board Statement

The Board of GCL SI regards sustainable development as the cornerstone for operational and strategic decision-making. We look forward to shaping a sustainability governance structure that is resilient to change and attentive to key external and internal stakeholders. In doing so, we demonstrate GCL SI's long-lasting commitment as a responsible enterprise.

The Board is the highest governing body responsible for supervising ESG-related affairs. In 2024, we include ESG management into the responsibility scope of the Strategy Committee under the Board and renamed it as the "Strategy and Sustainability Committee". The Committee reviews and approves ESG and sustainability-related strategies, policies and targets considering industry insights, corporate operational practices and stakeholders' expectations. The Board is also actively involved in ESG training to enhance ESG governance and trend-setting capabilities, so as to undertake responsibilities for sustainable development more effectively.

We continue to optimize our ESG governance and regularly review our ESG performance. Moreover, we monitor the progress of ESG targets and the implementation of initiatives in key areas such as climate change and carbon emissions management, water management, human capital development, occupational health and safety, anti-corruption and business ethics, and sustainable supply chain. We phase in the integration of key ESG performance indicators into remuneration assessment, thus motivating the management and employees to advance ESG efforts.

Additionally, the Company has established the Sustainability Management Committee and the Sustainability Promotion Office. The Committee oversees the implementation of sustainability strategies, regularly reviews the progress of ESG-related events, and enhances the Company's performance on this front.

The Board is committed to maintaining transparent, open, timely and efficient communication with stakeholders. After identifying material ESG issues, the Company has conducted a materiality assessment based on stakeholder surveys and interviews. The Board has also discussed and approved the result of issue prioritization and the materiality matrix in order to clarify ESG strategies and governance approaches.

The Report is a detailed and honest disclosure of the progress and effectiveness of our ESG performance in 2023, and was deliberated and approved by the Board on 24 April 2024. Looking ahead, GCL SI will make every effort to promote ESG performance, enhance the transparency of information disclosure, and push forward the progress of sustainable development.



As a key player in the global renewable energy industry, GCL SI upholds the objectives and principles of the United Nations Framework Convention on Climate Change (UNFCCC) and its Paris Agreement, as well as China's "dual carbon goals". We actively promote emission reduction processes within our own operations and across our supply chain. In 2023, GCL SI, following the methodology of the Science Based Targets initiative (SBTi), sets targets for greenhouse gas (GHG) emission reduction based on accurate accounting of our organizational GHG emissions and in line with our actual operating conditions. Additionally, GCL SI has interconnected the whole production chain by building the "Green Intelligent Manufacturing 4.0" system. With the system, the Company is able to enhance the competitiveness of differentiated products and prepare for product exports and globalization. To achieve our carbon management targets, GCL SI emphasizes the utilization of carbon blockchain management. In this context, the Company has developed the "Carbon Chain Module" platform, facilitating connectivity across the entire green industry chain, from raw materials to finished products. By virtue of the "Green and Intelligent Manufacturing 4.0" system and the "Carbon Chain Module" platform, we strive to track the carbon footprint along the industry chain and strengthen both organizational-level and product-level carbon management.

Our Targets for Carbon Emissions Reduction

In 2023, we had set and released our targets for carbon emissions reduction after considering the operational performance, referring to the SBTi methodology and modelling carbon emission trends under different scenarios.

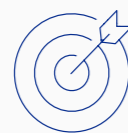
GCL SI's Targets for Carbon Emissions Reduction

Scope 1 and 2

By 2030, reduce absolute scope 1 and 2 GHG emissions **42%** from the 2023 level

Scope 3

By 2030, reduce scope 3 GHG emissions from productive raw materials **51.6%** per MW of product produced from the 2023 level



GCL SI's Carbon Reduction Pathway

Scope 1 and 2

- **Energy efficiency improvement:** lighting optimization, air conditioning optimization, device parameter optimization, heat insulation technology reform, etc.
- **Energy optimization:** installing additional factory-owned PV power plants.
- **Purchase of renewable-sourced electricity:** actively purchase and utilize renewable-sourced electricity.

Scope 3

- **Replacement of fluidized bed reactor (FBR) polysilicon:** increase the utilization rate of FBR polysilicon as a raw material.
- **Replacement of primary and secondary materials:** continuously optimize the procurement of raw materials, reduce the carbon emission per unit of purchased raw materials and reduce the quantity of raw materials purchased.
- **Supplier advocacy:** set overall carbon reduction targets for upstream suppliers and raise the entry standard; suggest leading module suppliers to set up and practice SBTi targets.

An End-to-end "Carbon Chain Module" for Zero-Carbon

With the growing emphasis on enhancing the "carbon productivity" of energy products and promoting greener production methods, carbon chain management is receiving increasing attention from partners and stakeholders in the renewable energy industry. To this end, GCL SI actively implements "zero-carbon" operations and adopts best practices in carbon chain management for greener and low-carbon development. In collaboration with upstream and downstream enterprises, we have built a product-centered end-to-end tracking and carbon management system. With a focus on product carbon footprint, supplier traceability and organizational carbon management, we have set up an emission factor library for the PV industry to drive the development of a low-carbon industrial supply chain.

In 2023, GCL SI joined hands with Ant Digital to launch the Carbon Chain Management Project. We had co-built the "Carbon Chain Module", a whole-chain zero-carbon digital management platform based on advanced technologies such as blockchain and privacy computing. Having gained wide application throughout the value chain, this solution effectively enhances our capabilities such as accurate measurement and analysis of the product carbon footprint. As a powerful digital tool, the platform makes carbon data traceable, verifiable and credible, thus facilitating the green and low-carbon development of the industry.

"Carbon Chain Module" employs a "one product, one code" traceability form. By scanning the QR code on the modules, users can quickly access product information, carbon footprint reports, production factories, and raw material traceability, etc., achieving real-time, accurate, efficient, and in-depth supply chain traceability. This empowers the product throughout its entire lifecycle, from production, transportation, sales, to usage, by tracing and managing the "carbon emissions" at each stage. We make carbon data transparent from the beginning to the end of the product lifecycle, thus fueling the transition to greener energy for clients worldwide by virtue of truly green and low-carbon products.



Regulated by the GCL SI's "Carbon Chain Module", our combined carbon value is dynamically reduced by **20-35%** compared to the Ecoinvent3.9.1 default standard value.



Carbon Chain Module



Antchain TaaS Certificate

Product Carbon Footprint Management

The Company effectively monitors and manages carbon emissions throughout the lifecycle of cells and modules via the "Carbon Chain Module" platform.



Low-carbon design and raw material procurement

The Company comprehensively considers the impact on resources and the environment caused by the selection of raw materials, production, transport, recycling and disposal, as well as corresponding potential carbon emissions. By minimizing hazardous raw materials, we are active in procuring green raw materials such as FBR polysilicon, for a green, low-carbon and circular product chain.



Product manufacturing

GCL SI phases in automation and intelligence projects to reduce product costs and raise efficiency, thus trimming product carbon emissions.

GCL SI strictly adheres to international high standards at every stage of product design, production, and sales to ensure product quality and safety. Each of our carbon chain module products has been certified by the German TÜV Rheinland and the French Evaluation Carbone Simplifiée. This not only represents our stringent requirements for product quality but also reflects our commitment to sustainable development and environmental protection. We are dedicated to providing consumers with safe, reliable, and environmentally friendly products to meet the growing market demand and fulfill our social responsibilities.

Achievements in Low-carbon Development



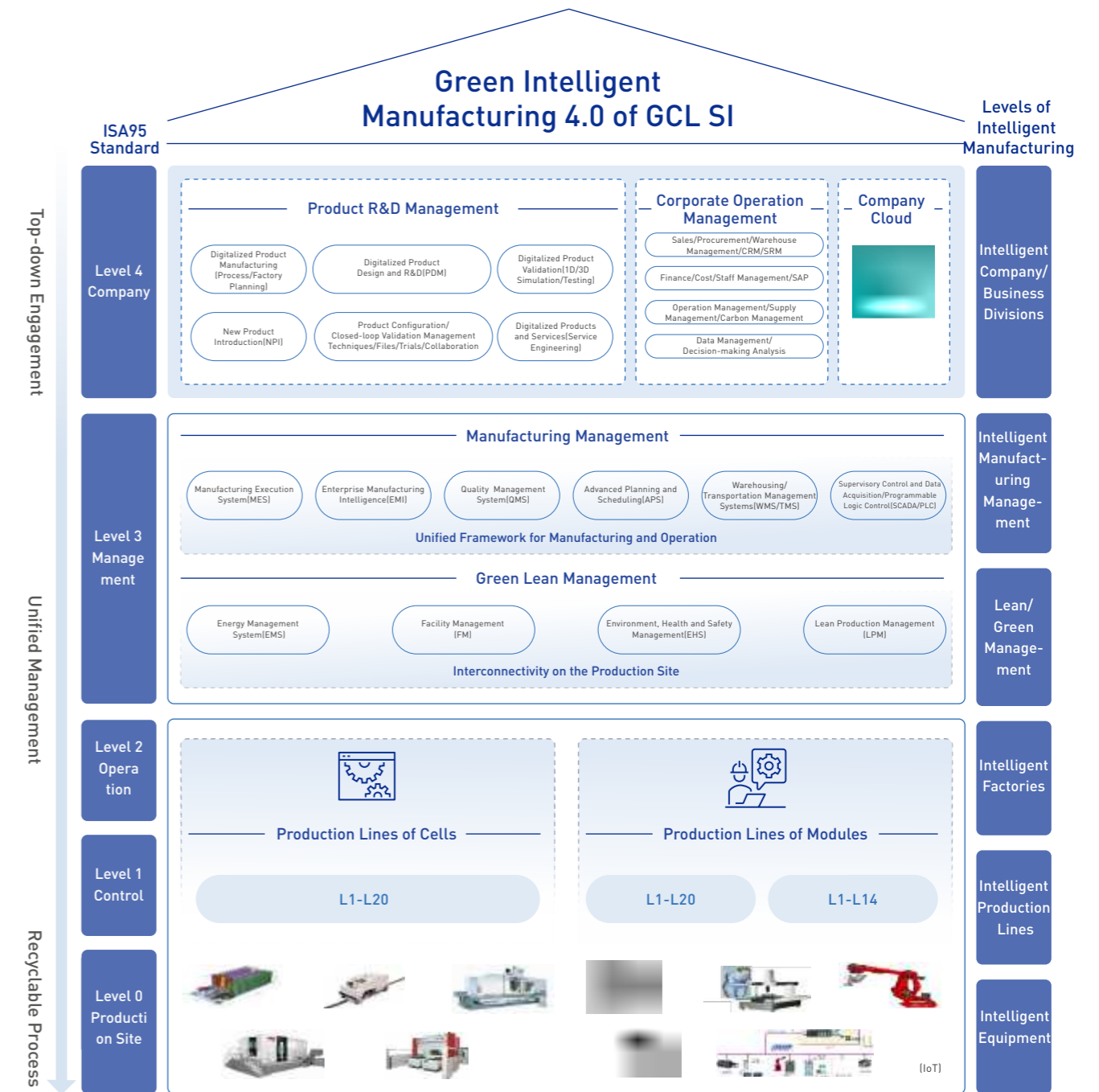
Low Carbon Certificate



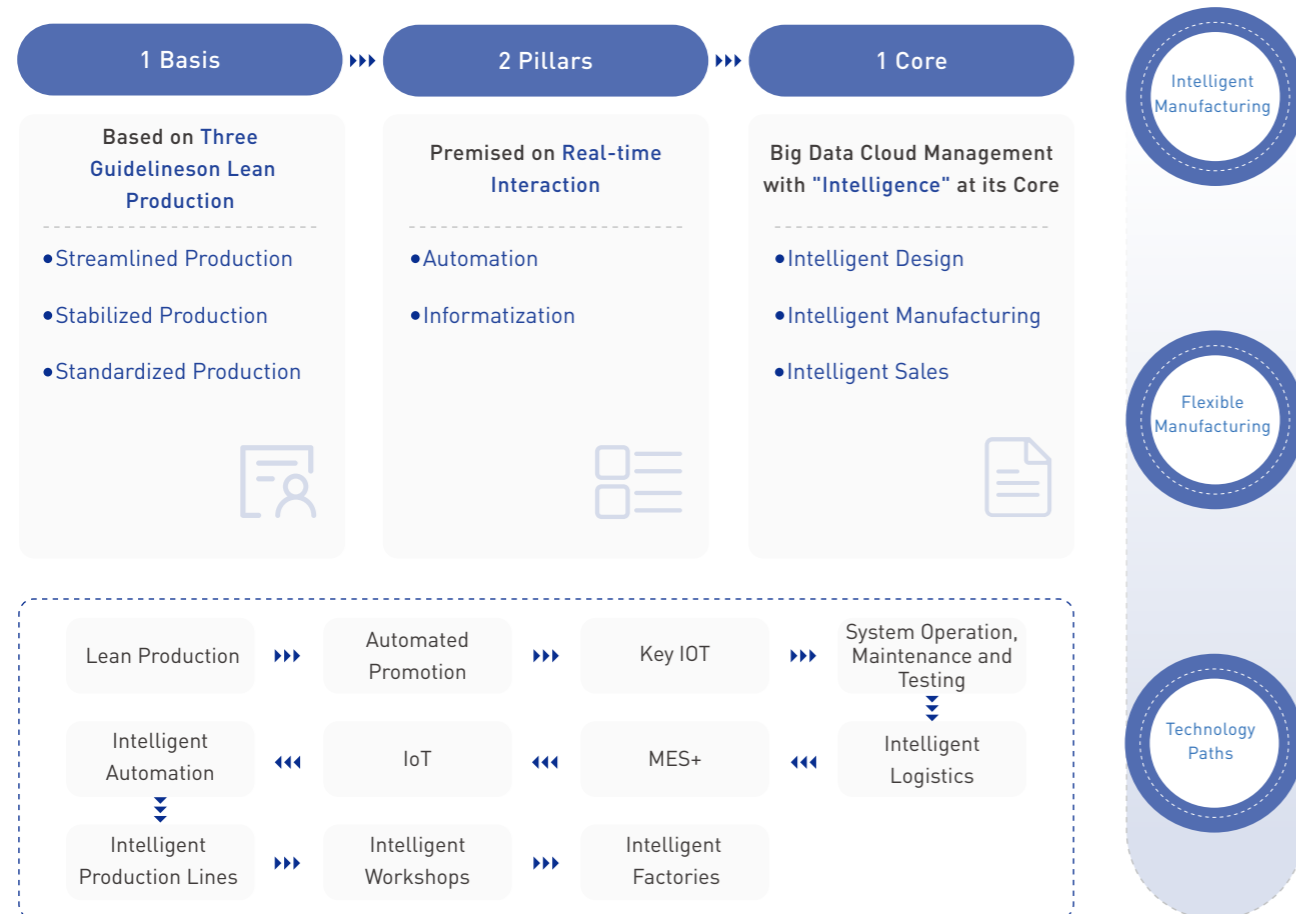
Product Certificate

Green Intelligent Manufacturing

Led by the approaches of "Industry 4.0 Intelligent Manufacturing + Green and Low Carbon Development", GCL SI makes earnest efforts to strive for Green Intelligent Manufacturing 4.0. For this purpose, we will follow the principle of "phasing in the master plan and reinforcing the foundation to add more value".



In terms of manufacturing, GCL SI has set up a big data platform for the whole production process based on the Manufacturing Execution System (MES). We leverage lean production to realize intelligent manufacturing.



By driving the vigorous development of intelligent manufacturing technologies, we have significantly enhanced our industrial competitiveness with a remarkable improvement in key production indicators.

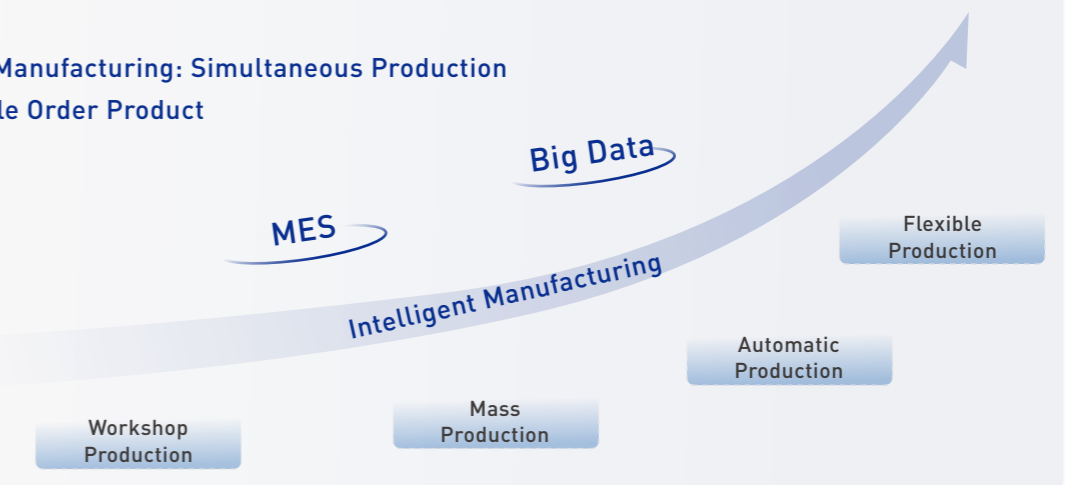
Disclosure Item	Traditional Manufacturing	Intelligent Manufacturing
Increase in Overall Equipment Effectiveness	70%	95.6%
Increase in Flexible Manufacturing	0%	86%
Percentage of Digitalized Techniques	80%	100%
Percentage of Process Automation	75%	95%
Percentage of System Integration	65%	100%

Case

Empowering multi-order product manufacturing with intelligent platform and flexible manufacturing to reduce cost and increase efficiency

The GCL SI Central Control Platform is equipped with various functions, including data acquisition from multiple sources, data storage and processing regarding human resources, machinery, materials, methods and environment, and rapid development and application. Besides, the platform can rapidly visualize data, analyze data from multiple dimensions, and develop algorithms through machine learning. With these functions, the platform supports process innovation, procedure optimization and intelligent manufacturing for digital management of the Company.

Flexible Manufacturing: Simultaneous Production of Multiple Order Product



Industrial Dashboards for Flexible and Automated Production Lines

Intelligence + Human-machine Collaboration

AR Remote Assistance in Maintenance

EL Man-less Review

Facial Recognition at Key Stations

Packaging Robots

Intelligence + Predictive Analytics

Gear Distribution Forecasts

Material Mix Recommendations

Cell Supply Analysis

Production Anomaly Prediction

Intelligence + Operational Improvement

AGV Logistics Scheduling

Energy Consumption Optimization for Air Compressors

Intelligent Production Scheduling

Factory-wide Work Safety Management

Changes to Challenges - An Introduction to GCL SI's Manufacturing Bases of Cells and Modules

In recent years, the PV industry has witnessed profound changes in capacity structure and technology. In response to ever-changing market demands, GCL SI vigorously pushes forward the transformation of capacity structure towards higher efficiency and premium quality. The Company has accelerated the layout of large-sized high-efficiency modules and cutting-edge N-type TOPCon cells for higher production capacity. As the module manufacturing base, Hefei GCL SI, and the cell manufacturing base, Wuhu GCL SI, have been put into operation, the Company's overall performance has soared. As a result, we forge ahead against the complex and volatile market, presenting a strong momentum of development.

The first phase construction (15GW) of the Hefei GCL SI 60GW large-sized module manufacturing base was launched in December 2020, with the designed capacity reached in 2022. In 2023, the first phase of the base achieved improvement in quality and efficiency, with a production capacity of over 1.4GW per month and daily output of 42,000 pieces for the first time. The second phase of the above base is in full swing and is projected to be the largest super AI factory with the lowest cost in the world. With excellent performance in intellectual property rights, transformation of scientific and technological achievements, R&D investment, talent introduction and financial growth, Hefei GCL SI was certified as a "National High-tech Enterprise".

The first phase construction (10GW) of the Wuhu GCL SI 20GW high-efficiency TOPCon cell manufacturing base was launched in February 2023 and put into operation in July, with the full capacity reached in October. The project is equipped with advanced processes and intelligent controls on production lines. The average cell efficiency was 26.2% with a yield of over 97.5% as of the end of April 2024. Wuhu GCL SI has enhanced the independent production capacity of TOPCon cells for GCL SI, mitigates supply chain risks, and significantly improves the profitability and overall competitiveness of the Company.

GCL SI thoroughly understands that sustainable development is not only reflected by the outstanding economic performance of a Company, but also embodied in continuous practices in environmental and social responsibilities, as well as in proactive contributions to industry development and social progress. Hefei GCL SI and Wuhu GCL SI play a key role in technological innovation, green development, humanistic care and other sustainability-related efforts.



Outdoor scene of Hefei GCL SI



Workshop of Hefei GCL SI



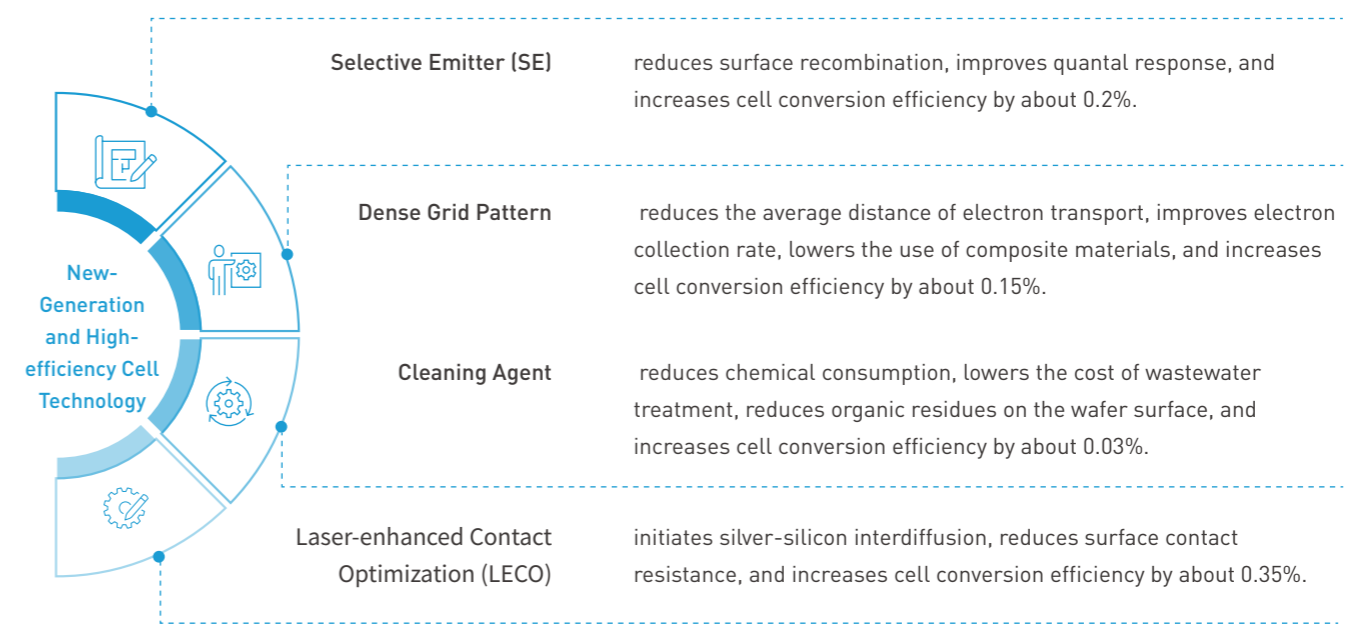
Outdoor scene of Wuhu GCL SI



Workshop of Wuhu GCL SI

Technological Innovation

GCL SI adheres to technology-driven innovation. We aim to fuel the global energy transition by developing advanced green and low-carbon products. Wuhu GCL SI and Hefei GCL SI align with market trend shifts, focus on a wide range of customer demands, and are committed to advancing new technologies and offering differentiated products in the cell and module sectors.



Differentiated Module Products

"Lotus" Module

the module adopts a raised-edge design and a fully unobstructed front screen, effectively addressing the industry's pain points of power generation loss and hot spot effect in PV modules caused by dust accumulation. Under the same installation environment, module type, and system configuration, the Lotus module achieves a power generation gain of up to 12% and reduces the system's cost per kWh by 7%.



"Lotus" Module

"Xinfuding" Building Integrated PV (BIPV) Module

the module utilizes A-grade fireproof materials, complemented by an Australian-style wide-span concealed clip which achieves superior fireproof and waterproof performance. Its mechanical fastening structure can withstand a snow load of 7,000Pa and a wind uplift pressure of 5,600Pa, capable of resisting winds of level 17 or higher. "Xinfuding" boasts a streamlined design and minimal maintenance requirements, offering an installation efficiency more than 1.5 times that of conventional BIPV modules.



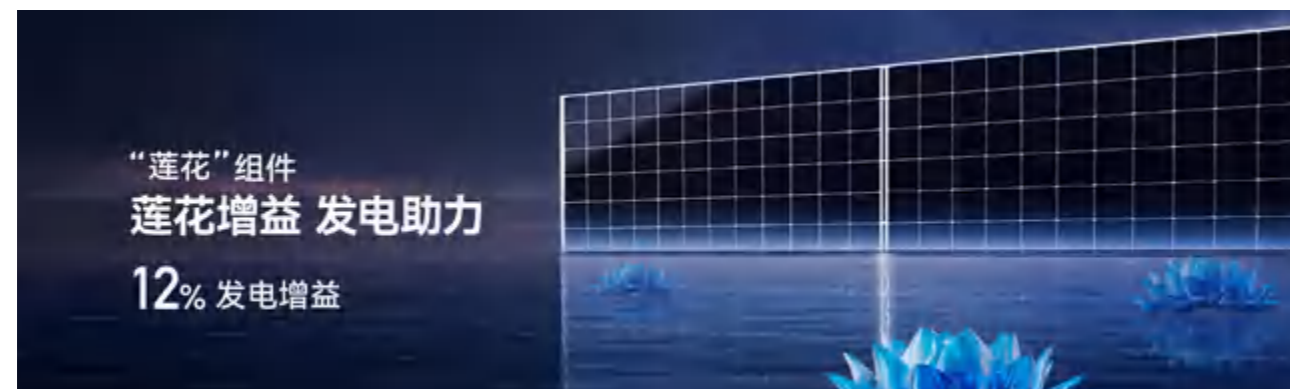
"Xinfuding" BIPV Module

Floating Solar Module

after seawater immersion test for 10 times longer time than the IP68 standard, anti-typhoon wave dynamic load test under 1,440Pa for 5,000 times, 8-grade salt mist reliability test, DH2000 humidity and heat test, and PID test, the module demonstrate excellent resistance to wave impact and salt spray.



Floating Solar Module



While continuously strengthening our own research and development capabilities, we actively expand our external cooperation network. Hefei GCL SI has established a close cooperation mechanism with upstream and downstream partners, research institutes, and universities, pooling resources and advantages from all parties to jointly promote technological breakthroughs and product innovation.



Cooperation with Suppliers

We engage in technical exchanges with equipment and secondary material suppliers to jointly develop zero-busbar (0BB) modules. The 0BB technology removes the main busbar from cells while using welding tapes to facilitate current flow. This approach notably cuts costs, bolsters power generation, and enhances product yield.



Cooperation with Customers

In collaboration with OCEANSUN, we have developed the floating solar modules, and successfully completed a 0.5-MW pilot floating solar project integrated with wind turbines in Yantai, Shandong Province, China. This pioneering effort contributes to the world's first deep sea and offshore "Wind and Solar Integration" project. During the Reporting Period, the project has completed the development and feasibility testing of the 182mm floating solar module. Currently, we are refining the certification and evaluation testing of some materials (waterproof junction boxes, frame structural adhesives), which will further enhance the power output of the floating solar modules.



Collaboration and Exchange with Research Institutes

We collaborate with a number of universities and enterprises on the "Research and Development of Key Technologies and Core Components for Offshore Floating PV Power Generation & Project Demonstration", a key project under the "Renewable Energy Technology" R&D program outlined in the "14th Five-Year Plan". The successful outcomes of this project will establish independent intellectual property rights, core competencies, key technological advancements, and a comprehensive suite of equipment for offshore floating PV power generation. This project will also solidify China's position as a global leader in the development of offshore floating PV technology.



Green Development

GCL SI is dedicated not only to the production of high-quality renewable energy products but also to the integration of green development principles into our manufacturing processes.



Biodiversity
Strategy 2030

GCL SI stands as one of the pioneers in the industry for developing the **Biodiversity Strategy 2030** and integrate it into the Company's development framework. We integrate biodiversity protection throughout the entire process of factory site selection, construction, and operation. We also contribute to the restoration of ecological diversity through the development of green energy products, ensuring that our production activities, product applications, and natural ecosystems coexist harmoniously.

Case Self-built PV power stations to increase the proportion of renewable energy use

GCL SI advocates for clean electricity. We continuously increase the proportion of renewable energy use, aiming to enhance the level of "green manufacturing". We install solar PV power generation systems on factory rooftops and idle spaces to reduce reliance on traditional external energy sources. During the Reporting Period, Hefei GCL SI PV power station project fully went into operation, with a total installed capacity of 28.41 MW. The annual cumulative electricity generation by this project reached 29.18 million kWh, which was mainly consumed internally at the base, accounting for 21.72% of the total electricity consumption of the entire factory. In the future, GCL SI will expand our green electricity procurement and expects to enter into long-term power purchase agreements with clean energy suppliers. Concurrently, we will explore the purchase of green certificates as an additional measure to guarantee that a significant portion of our electricity consumption is derived from renewable sources, thereby upholding our commitment to both environmental and social responsibility.



Hefei GCL SI Xinyu PV Power Station

Humanistic Care

Talent is the cornerstone and the enduring engine of GCL SI's long-term growth and success. We maintain a human-centric philosophy that places a comprehensive emphasis on talent cultivation and is dedicated to enhancing the well-being of our employees.

Education and training are essential for bolstering the base's core competitiveness, driving technological advancements, and optimizing management practices. With a well-established talent cultivation system, Hefei GCL SI continues to provide impetus for the Company's development.

"Xinzhiyi" GCL New Joiner Onboarding Diary

Carry out the "Xinzhiyi" training program, which encompasses vital subjects such as regulations, administration, safety, and remuneration, and offer the GCL New Joiner Onboarding Diary, a comprehensive work-life handbook, to help new hires to quickly integrate into their team.



"Xinzhiying" New Employee Training Camp

Organize the three-day "Xinzhiying" intensive training to enrich new employees' comprehension of the Company's culture and business, and forge a spirit of teamwork.



"Shifuzhang" Management Training

Implement the "Shifuzhang" management training (frontline management training) and leadership advancement programs for mid- to senior-level management, to enhance management capabilities at all levels.



As the Company grows, Hefei GCL SI actively enhances cooperation with the government and works together to foster the development of local talents.

Case Hefei GCL SI cooperated with the government to establish a child education and support mechanism to solve the worries of talents

In 2023, Hefei GCL SI partnered with the government to launch a preferential housing purchase policy, effectively alleviating employees' housing purchase pressures. We also partnered with the government to create an education support mechanism for employees' children, through which, Hefei GCL SI helped 4 children of relocated employees successfully enroll in schools, further enhancing job stability and sense of belonging for relocated employees.



School Enrollment of Children of Hefei GCL SI Relocated Employees

「N」ature

GCL SI takes a forward-looking approach to green and sustainable development, anticipating greater potential for ecological protection. The Company, in alignment with the Paris Agreement and the disclosure framework of the Task Force on Climate-related Financial Disclosures (TCFD), actively assesses and addresses climate risks by formulating climate risk response strategies. We have implemented multiple measures in energy management, water resource management, biodiversity protection, circular economy, and waste management to mitigate the negative impact of our production and operations on the environment.

Hefei GCL SI, Funing GCL SI, and Xuzhou Xinyu factories all obtained the **ISO 14001** Environmental Management System Certification

Hefei GCL SI, Funing GCL SI factories obtained the **ISO 50001** Energy Management System Certification

During the Reporting Period, GCL SI did not involve in any incidents of being penalized due to environmental issues

Environmental protection investment
RMB **51.07** million

Consumption of electricity generated from renewable energy

41,129 thousand kWh

Production-based electricity consumption intensity

25.38 MWh/MW

Production-based GHG emission intensity (location-based)

13.53 tCO₂e/MW

Production-based GHG emission intensity (market-based)

13.41 tCO₂e/MW

Production-based water consumption intensity

88.35 tonnes/MW

Non-hazardous waste recycling rate

99.93%

UNSDGs supported in this chapter:







1.1 | Responding to Climate Change

GCL SI views climate action as an essential support for the Company's sustainable development. With reference to the TCFD disclosure framework, we have constructed a climate change management system around four dimensions: governance, strategy, risk management, and metrics and targets. In actively responding to international initiatives and domestic policies, GCL SI conducts GHG (GHG) emission audits, and sets emission reduction targets, aiming to demonstrate the Company's determination and commitment to emission reduction. We have adopted various energy-saving measures to achieve our emission reduction targets on schedule. In addition, GCL SI actively promotes comprehensive energy lifecycle management of products, and creates green and low-carbon products to minimize resource consumption.

Climate Governance

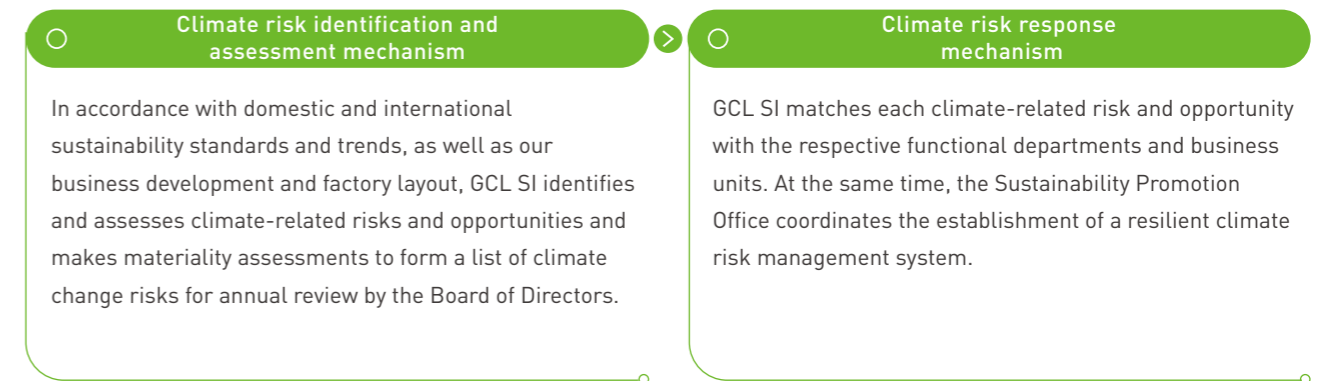
GCL SI continuously improves the climate governance structure, with the Board of Directors serving as the central body responsible for climate issues, and regularly reviewing and assessing climate-related risks and opportunities. In 2024, the Company listed the sustainable development (including climate) function as a special committee under the Board of Directors, and renamed it as the "Strategy and Sustainability Committee", which is responsible for overseeing and outlining the Company's overall climate strategy, goals, and related major issues. Under this committee, the Company has established a Sustainability Management Committee and a Sustainability Promotion Office, which are responsible for managing specific climate governance issues. There is a Climate Action Working Group within the Sustainability Management Committee and the working group is responsible for managing climate risks and opportunities.

GCL SI Climate Governance Structure	
 Strategy and Sustainability Committee	<p>The highest decision maker and governance body for the Company's climate action</p> <ul style="list-style-type: none"> Oversee and outline the overall sustainable development strategy and related major issues of the Company. Study and propose recommendations for the Company's major investment and financing plans, major capital operations, and asset management projects. Review the Company's sustainable development (including climate) strategy, goals, issues and policies, and risk management situation.
 Sustainability Management Committee	<p>The decision-making body and management of the Company's climate action</p> <ul style="list-style-type: none"> Guide and develop climate strategy and structure Formulate annual climate management plan and targets Approve significant climate-related risk issues and corresponding policies Identify and prioritize climate-related risks and opportunities of the Company Review climate-related disclosure Establish an appropriate and effective climate risk management framework
 Sustainability Promotion Office	
 Climate Action Working Group	<p>The coordinating body of the Company's climate action</p> <ul style="list-style-type: none"> Responsible to organize, implement, coordinate, execute, and validate the Company's climate projects Manages climate-related matters and risks in the daily operations of various departments and business units Responsible for climate-related campaigns and external engagement activities

Climate Strategy

With reference to the TCFD risk analysis framework, and taking full consideration of domestic and international trends and the concerns of various stakeholders, GCL SI has identified transition risks and physical risks related to the Company's operations, and has formulated corresponding measures for related risks and opportunities.

GCL SI has incorporated climate risk into the corporate risk management process:



Climate Risk Management

Climate Risk Matrix

Risk Type	Risk Factor	Potential Financial Impact	Description of Potential Financial Impact	Solutions
Physical Risk	Climate disasters (short-term)	Affect production, transportation, the value of fixed assets, and increase operating costs	Typhoons, floods, and other natural disasters can lead to safety accidents, forced production shutdowns, and increased transportation costs	<ul style="list-style-type: none"> Optimize transportation modes Formulate emergency plans for extreme weather events, conduct emergency drills and increase the reserve of emergency supplies
	Climate change (long-term)	Impact production and increase operating costs	Sustained high temperatures cause abnormal power supply and increase high temperature expenses; Sea level rise increases the likelihood of relocation or structural changes of production bases located in coastal areas	<ul style="list-style-type: none"> Increase local procurement Improve energy efficiency in the factories
Transition Risk	Laws and regulations (short-term)	Increase operating and financing costs	The increase in carbon market prices and the implementation of carbon taxes lead to higher operational and procurement costs; Violating laws and regulations can bring penalties	<ul style="list-style-type: none"> Strictly comply with the regulations of the country where we operate and where products are sold, and regularly monitor changes in relevant policies and regulations Establish a comprehensive compliance system and safeguard mechanism
	Technological changes (medium-term)	Increase operating costs	Upgrade energy-saving equipment; Costs associated with outdated technology	<ul style="list-style-type: none"> Improve energy usage efficiency and improve product production efficiency Pursue independent innovation and attract technical talents
	Market changes (medium-term)	Increase operating costs and affect the Company's reputation	Reduction in market subsidies leads to an increase in direct costs; The Company may suffer from poor reputation and negative performance due to inadequate climate actions	<ul style="list-style-type: none"> Actively communicate with stakeholders, respond to market and customer expectations for sustainability, and enhance corporate performance in this area

For the identified climate risks, GCL SI has established targeted environmental and climate risk prevention and control measures, as well as emergency management systems in order to enhance the ability to respond to climate change.

We continue to monitor the potential impact of climate change on our business and the upstream and downstream of the

industrial chain. Based on this, we conduct training on climate change and emission reduction issues for suppliers to enhance the climate resilience of the supply chain. In 2023, GCL SI launched a carbon chain management initiative to develop the Carbon Chain Module system. The goal is to track the end-to-end lifecycle product "carbon footprint", enabling the traceability and management of "carbon emissions" throughout the entire supply chain, from production to transportation, sales, and use. For details, please refer to the annual topic "Carbon Emissions Reduction with Technologies - Digital Carbon Chain Management and Intelligent Manufacturing" in the Report.

GHG Management

Based on the SBTi methodology, and our own strategy and operational planning, the Company has set GHG emission reduction targets and established the GHG emission reduction roadmap. For details, please refer to the annual topic "Carbon Emissions Reduction with Technologies - Digital Carbon Chain Management and Intelligent Manufacturing".

GCL SI's Targets for Carbon Emissions Reduction

By 2030, reduce absolute scope 1 and 2 GHG emissions **42%** from the 2023 level

By 2030, reduce scope 3 GHG emissions from productive raw materials **51.6%** per MW of product produced from the 2023 level

GCL SI has prioritized GHG inventory and management. In 2023, GCL SI engaged a third-party agency to conduct a GHG emissions inventory in accordance with the GHG Protocol, covering GHG emissions from both operations and the upstream and downstream chains. This effort is designed to assist the Company in understanding and enhancing the carbon management practices through a scientific approach. By increasing the proportion of renewable energy use and upgrading equipment for energy efficiency, we will continue to target our resources for emission reduction in key areas and strive to fully achieve our GHG emission reduction targets.



GCL SI Scope 1 and 2 GHG Emission Performance in 2021-2023¹

Disclosure item	Unit	2021	2022	2023 ²
Scope 1 GHG emissions	tCO ₂ e	235.68	325.87	1,309.95
Scope 2 GHG emissions (location-based)	tCO ₂ e	65,579.37	87,669.92	250,992.40
Scope 2 GHG emissions (market-based)	tCO ₂ e	-	-	248,867.51 ³
Total Scope1 and Scope 2 GHG emissions (location-based)	tCO ₂ e	65,815.05	87,995.79	252,302.35
Total Scope1 and Scope 2 GHG emissions (market-based)	tCO ₂ e	-	-	250,177.45

Disclosure item	Unit	2023
Revenue-based Scope 1 and Scope 2 GHG emission intensity (location-based)	tCO ₂ e/RMB 10,000	0.16
Revenue-based Scope 1 and Scope 2 GHG emission intensity (market-based)	tCO ₂ e/RMB 10,000	0.16
Production-based Scope 1 and Scope 2 GHG emission intensity (location-based)	tCO ₂ e/MW	13.53
Production-based Scope 1 and Scope 2 GHG emission intensity (market-based)	tCO ₂ e/MW	13.41

Sourced from the inventory data, the Scope 3 emission categories related to GCL Integration include purchased goods and services, capital goods, fuel and energy-related activities, upstream transportation and distribution, waste generated from operations, business travel, employee commuting, upstream leased assets, and disposal of sold products at the end of their life. During the Reporting Period, the Scope 3 emissions amounted to 14,408,778 tCO₂e. Among them, emissions from purchased goods and services amounted to 13,789,146 tCO₂e, accounting for 95.7% of the Scope 3 total.

¹In 2023, GCL SI conducted GHG emissions data accounting based on operational control; the scope of accounting included the Suzhou Management Center, the four production bases of Hefei GCL SI, Wuhu GCL SI, Funing GCL SI, and Xuzhou Xinyu, GCL Energy Storage, GCL Green Energy, and the GCL SI offices in Beijing, Japan, and Munich.

²Due to the significant increase in production capacity at GCL SI in 2023, the Company's GHG emissions also increased significantly. In the future, the Company will continue to explore and implement diversified emission reduction measures to fully achieve the emission reduction targets.

³GCL SI began to disclose market-based Scope 2 GHG emissions from 2023 Sustainability Report.

GCL SI Scope 3 GHG Emission Performance in 2023⁴

Disclosure item	Unit	2023
Scope 3 GHG emissions	tCO ₂ e	14,408,778

GCL SI Proportion of Scope 3 GHG Emission Categories in 2023




The Company actively champions green and sustainable operations. We adopt various measures to reduce carbon emissions in production, including improving energy use efficiency, optimizing production processes, and adopting eco-friendly technologies.

Major GHG Emission Reduction Measures


Optimize equipment

replace the original plate-type air filters of the factory's air conditioning units with non-woven fabric filters to reduce equipment wear and tear and extend the service life.




Optimize energy distribution

he factory's storage tank is equipped with water-cooled technology. During off-peak electricity rates, ice machines are activated for cooling storage; during peak electricity rates, the ice machines are shut down. Cold water from the storage tank goes directly to the air conditioning system.




Save resources

r set up partitions in the workshop's testing area and install full electrical air conditioners to reduce the amount of gas boiler-generated hot water used by the original air conditioning units.



Utilize clean energy

procure and utilize green electricity to optimize the energy structure.



⁴GCL SI began to disclose Scope 3 GHG emissions from 2023 Sustainability Report.

Product Lifecycle Management

Adhering to the principles of sustainable development, GCL SI fosters green management throughout the product lifecycle, proactively developing eco-friendly products, minimizing resource use, and advancing the circular economy and sustainable practices.



Introduce the ecological concept in product design, carry out self-evaluation of ecological design in accordance with GB/T 24256 "General Rules for Product Ecological Design" and GB/T 32161 "General Principles for Eco-design Product Assessment", and form audit reports.



Select suppliers who have obtained product carbon footprint certification or whose products have a lower carbon footprint, and require all procurement parties to sign the "Letter of Commitment on Safety and Environmental Protection".



Emphasize green lean production by organizing lean production improvement activity review meetings, and awarding advanced and outstanding personnel to inspire full participation in lean management and continuously create a lean production atmosphere.



Rationally plan the layout of the factory area, implement intermodal transportation, optimize transport routes, and take other measures to continuously improve the resource utilization efficiency of logistics links such as containerization, storage, and transportation, and accelerate the construction of a digital and low-carbon logistics industry chain.



Maximize the recycling and reuse of discarded modules and product packaging materials, promote the circular economy, and enhance the resource output rate and recycling utilization rate.

Case

Precise management, lean production - Hefei GCL SI conducts quarterly lean production improvement activity review meeting

GCL SI adheres to the philosophy of "precise management, lean production", committed to enhancing employees' understanding of lean and digital tools, and continuously improving quality and efficiency. In 2023, Hefei GCL SI organized a review meeting for lean production improvement every quarter to summarize the implementation of Quality Improvement Team (QIT) projects, proposed improvement activities, and rational suggestions. The improvement projects cover various aspects, including process optimization, personnel optimization, management process optimization, product quality enhancement, visualization improvement, and equipment transformation.



Review Meeting for Lean Production Improvement

Case

Our product component recycling project received EU Waste Electrical and Electronic Equipment (WEEE) certificate to empower the circular economy

The recycling and green disposal of scrapped PV modules, as the final process of the PV industry, serves as the ultimate safeguard in constructing a closed-loop, green PV industrial chain. GCL SI enthusiastically advocates for a circular economy. To this end, the Company actively explores reusable and high-value recycling methods for "retired" PV modules, and advances projects aimed at reusing and recycling discarded components.

GCL SI proactively undertakes PV module recycling initiatives, and rigorously follows the EU WEEE directives to ensure proper disposal of waste PV module equipment, and has obtained the certificate.



WEEE Certificate



1.2 | Energy Management and Renewable Energy Utilization

GCL SI adheres to the energy management policy of "low consumption and high efficiency, energy conservation and emission reduction, standardized operation and technological innovation", and takes multiple measures to strengthen energy management. We have established a comprehensive energy management system, promoted energy-saving projects, and increased the use of renewable energy to support the green energy transition.

Energy Management System

GCL SI strictly abides by laws and regulations such as the *Energy Conservation Law of the People's Republic of China* and the *Energy Management Guidelines for Industrial Enterprises*, and systematically monitors, controls, and optimizes energy consumption in production. The Company continues to advance energy management system, and has developed and implemented the Energy Management Manual, the Energy and Resources Management System, and the Energy Management System Procedures. These documents clearly outline the Company's principles and specific requirements for the rational utilization of various energies and resources.



By the end of the Reporting Period, both Hefei GCL SI and Funing GCL SI factories had obtained **ISO 50001** Energy Management System Certification.

GCL SI Energy Management Performance in 2021-2023⁵

Disclosure item	Unit	2021	2022	2023
Natural gas consumption	m ³	79,312	150,729	315,951
Total electricity consumption	kWh	126,600,000	150,893,426	473,387,732
<i>Self-generated renewable electricity</i> ⁶	kWh	-	-	37,403,487
<i>Purchased municipal electricity</i>	kWh	126,600,000	150,893,426	432,258,316
<i>Purchased renewable electricity</i>	kWh	-	-	3,725,929
Steam consumption	m ³	2,177	3,238	6,640
Gasoline consumption	kg	101,698	-	59,974

⁵The scope of GCL SI's energy management performance in 2023 includes the Suzhou Management Center, the four production bases of Hefei GCL SI, Wuhu GCL SI, Funing GCL SI, and Xuzhou Xinyu, GCL Energy Storage, GCL Green Energy, and the GCL SI offices in Beijing, Japan, and Munich.

⁶GCL SI began to disclose self-generated and purchased renewable electricity from 2023 Sustainability Report.

GCL SI Energy Management Performance Per Production Unit in 2023

Disclosure item	Unit	Data for 2023
Production-based natural gas consumption intensity	m ³ /MW	16.94
Production-based electricity consumption intensity	MWh/MW	25.38

Hefei GCL SI and Funing GCL SI have initiated a number of energy conservation and efficiency improvement technical transformation projects to comprehensively enhance the energy efficiency of the production process and promote green development.



Optimized module design

The R&D department has improved the design of the frame, and introduced liquid silicone rubber and synthetic polyurethane material composite frames, which have lower energy consumption compared to the original aluminum alloy frames.

Energy-saving walls

We have insulated the walls of the workshop packaging area with 100mm thick flame retardant glass wool insulation (A grade) to enhance thermal preservation and insulation, reduce the need for air conditioning, and consequently lower electricity consumption.

Energy saving of ice machine plate heat exchangers

In winter, based on the outdoor temperature, the cooling tower and winter plate heat exchangers are utilized to supply the air conditioning and process water systems after air/water heat exchange, thus reducing the operating time of the ice machine.

Installation of fluorocarbon cold air conditioner in the testing area

after installing fluorocarbon cold air conditioner, the electric air conditioner can be directly turned on to regulate the temperature, reducing the frequency of use of ice water units or boilers.

Energy saving in lamination machine area

Heat from the lamination machine is collected and sent to the constant temperature warehouse in the raw material warehouse, reducing the electricity consumption of the air conditioner load in the raw material warehouse.

Utilization of Renewable Energy

GCL SI continuously optimizes the energy structure, actively promotes the use of renewable electricity in manufacturing process, and continuously increases investment in clean energy.

During the Reporting Period, GCL SI's cell and module production bases generated renewable electricity by building rooftop PV power stations, thereby increasing the proportion of renewable energy in the overall energy usage of the production bases.

Case Hefei GCL SI constructs the Xinyu PV power station to promote cleaner electricity

To build a green factory, GCL SI makes full use of the building roofs, available spaces, and other resources to develop and construct PV power generation facilities on a large scale. In 2023, Hefei GCL SI successfully built "Xinyu" PV power station with a total installed capacity of 28.41 MW. In 2023, Hefei GCL SI's PV power generation reached 29,184.5 thousand kWh, with self-generated electricity consumption accounting for approximately 21.72% of the plant's total annual electricity consumption.



Hefei GCL SI Xinyu PV Power Station

In 2023, GCL SI consumed 37,403.5 thousand kWh of renewable electricity generated by self-built PV power stations; Funing GCL SI purchased and consumed 3.726 million kWh of renewable electricity, with total renewable electricity consumption reaching 41,129.4 thousand kWh.

GCL SI Renewable Energy Consumption in 2023

Disclosure item	Unit	2023
Consumption of renewable electricity	thousand kWh	41,129
Proportion of renewable electricity in total electricity consumption	%	8.69

1.3 | Environmental Compliance and Ecological Protection

Environmental Compliance

GCL SI actively conducts risk assessments for potential environmental incidents and establishes corresponding preventive measures. We regularly review our production facilities to ensure meet the latest environmental protection standards. We also provide our employees with training on environmental awareness and emergency response. In addition, we have developed comprehensive emergency plans to address any possible environmental emergencies, ensuring that we can handle any sudden situations swiftly and effectively. During the reporting period, GCL SI did not experience any significant environmental incidents, and no major environmental administrative penalties or criminal liabilities were incurred.

In 2023, GCL SI updated, reviewed and publicly disclosed the [Environmental Management Policy](#), with core content including:



Mission and Commitmen

The Company is committed to improving the proportion of green and clean energy in the energy structure and reducing greenhouse gas emissions through green innovation and photovoltaic technology upgrading.



Scope of Environmental Management Policy

The policy covers all business areas of the Company, including production operations, products and services, distribution logistics, waste management, suppliers, and partners.



Implementation Guidelines

- Environmental Management System: Comply with relevant laws and regulations and establish an environmental and energy management system in accordance with ISO 14001 and ISO 50001 standards.
- Greenhouse Gas Emission Management: Set emission reduction targets and strategies, conduct carbon audits, and promote carbon reduction in internal operations and the supply chain.
- Energy Management: Improve energy efficiency, explore green energy optimization, and respond to energy-saving and carbon reduction initiatives.
- Water Resource Management: Optimize water-saving technologies, implement recycling water systems, and reduce the demand for new water sources.
- Pollution and Waste Management: Manage solid and hazardous waste in compliance with regulations and increase the comprehensive utilization rate of harmless waste.
- Ecological Environment Management: Strictly adhere to laws and regulations for the protection of the ecological environment and engage in ecological protection actions.

Ecological Protection

GCL SI attaches great importance to the protection of ecological resources and place biodiversity at the core of our sustainable strategy. In 2023, the Company has established a new Biodiversity Strategy to integrate biodiversity into the Company's development framework. At the same time, we have established a strict waste management system, implementing recycling, harmless and circular management of waste, reducing the impact of production and operation on the environment, natural resources and biodiversity, and promoting harmonious coexistence between society and nature.

Biodiversity

Biodiversity is essential for the vitality of the Earth, and enterprises are essential players in biodiversity. GCL SI considers biodiversity a core sustainability principle, and constantly innovates and strengthens biodiversity initiatives. In 2023, GCL SI developed a biodiversity strategy that includes conservation initiatives in alignment with the principles outlined in the UN Convention on Biological Diversity and with reference to the EU's Biodiversity Strategy for 2030.

GCL SI Biodiversity Strategy

Strategic goal	Strategic goal
Increase the awareness level on the importance and value of biodiversity	GCL SI will contribute to raising awareness and mainstreaming biodiversity in educational conversations through training, internal and external education, awards, publications, sponsorship, and internal and external communication of the impact of the organisations activities in this area.
Reduce the direct pressures on biodiversity and promote sustainable use	GCL SI strives to promote sustainable use and end of life of products through working with consumers and the collecting and recycling industries, in addition to reducing our direct business pressures on biodiversity.
Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity	GCL SI will work with external partners to enhance biodiversity through sustainable management of land, measures to promote genetic diversity and reduce fragmentation of ecosystems.

To achieve our biodiversity strategy, GCL SI is committed to forging long term partnerships with companies and institutions that have similar biodiversity targets and communicating with local organizations to share our biodiversity-related policies and activities. Furthermore, the Company selects biodiversity research and conservation projects based on the biodiversity strategy framework and provides financial support for these projects. We also actively share the strategy and subsequent action plans with our employees, suppliers and other stakeholders to increase community awareness and understanding of our biodiversity strategy, and to promote a proactive approach to issues related to natural resource utilization.

The GCL SI Biodiversity Strategy has been developed as a dynamic framework, which will evolve with time as new projects become apparent and potential collaborations arise. The Company will disclose the progress of our biodiversity work in detail in our annual sustainability reports, as required by the GRI and the Task Force on Nature-related Financial Disclosure (TNFD), to ensure transparency in the disclosure of our actions and impacts on biodiversity.

Case Strict compliance with the "Ecological Red Line" at our cell production base

GCL SI strictly follows the *Law of the People's Republic of China on Environmental Impact Assessment*, the *Regulations on the Administration of Construction Project Environmental Protection* and other relevant laws and regulations to strictly observe the "Ecological Red Line". The Company has commissioned a qualified third-party organization to conduct an environmental impact assessment of the Wuhu GCL SI 20GW (Phase I 10GW) High-Efficiency Cell Manufacturing Project. During the Reporting Period, the environmental impact assessment report of the project has been completed and approved by the project technical review meeting, and the Company has obtained the environmental impact assessment approval from the local ecological and environmental authorities.

During the construction and operation phases of the project, the Company has formulated scientific and reasonable environmental impact control measures in accordance with the environmental impact assessment report, so as to protect the ecology of the region where the project is operated.




1.4 | Water Stewardship

GCL SI strictly follows the *Water Law of the People's Republic of China*, the *Water Pollution Prevention and Control Law of the People's Republic of China* and other laws and regulations. We continuously improve the water resources management system, and enhance the efficiency of water resources management through multiple initiatives. Meanwhile, the Company has formulated and enforced the Self Assessment Report on Water Use since 2021, and has established a water conservation evaluation team to assess water conservation each year.

Scaling up Diverse Water Sources

Globally, 19% of Gross National Production is generated from watersheds with high or extremely high water risks. GCL SI is keenly aware of the importance of water risk to global sustainability and sound business operations. Each year, the Company evaluates the water stress of all plants in continuous operation, adopting the Aqueduct Water Risk Atlas of the World Resources Institute (WRI). The results of the evaluation are as follows:

Plant	WRI Water Risk Level
Hefei GCL SI	High (3-4)
Funing GCL SI	High (3-4)
Wuhu GCL SI	Medium-High (2-3)
Xuzhou Xinyu	Extremely high (4-5)


GCL SI recognizes the importance of water as a precious natural resource. As such, we prioritize the exploration of local alternative water sources for our production and operations. At the end of 2023, the Company's sources of water included municipal water supply, rainwater collection and condensate collection.

Practicing Water Saving Measures

GCL SI regards water saving as a major concept of green production for the entire process of production and operation. During the Reporting Period, we strengthened water consumption analysis, upgraded the water saving facilities and optimized the wastewater treatment and recycling systems. We also set up water saving targets and tracked the progress of target achievement on a regular basis, so as to continuously promote the refined management of water resources.

Case Improving wastewater recycling rate by building a new concentrated water recycling system

Xuzhou Xinyu Plant recycles concentrated water by building a new concentrated water recycling unit, which is expected to recycle more than 340 tonnes of water per day on average, with a direct economic benefit of RMB 1,300/day.




Xuzhou Xinyu Concentrated Water Recycling Unit

Case Reasonable adjustment of the start-up volume of EDI equipment (an ultrapure water production equipment named electrodeionization) to minimize water consumption

The Wuhu GCL SI Plant reasonably adjusts the start-up volume of the EDI equipment according to the water consumption of the production line. With a stable water supply, one of the six sets of EDI equipment is switched off every day. This saved 812.2 kWh of electricity per day and saves RMB 18,762 in 2023.

Case Retrofitting condensate piping to reduce fresh water consumption

In October 2023, Xuzhou Xinyu Plant conducted a retrofit of condensate piping to channel condensate into the tap water pool for utilization, which is expected to save 14,100 tonnes of tap water per year, with direct financial benefits amounting to RMB 54,285.



Retrofitting Condensate Piping

GCL SI Water Consumption Performance in 2023⁷

Disclosure Item	Unit	2023
Total water consumption ⁸	Tonnes	1,647,653.09
Reclaimed water recycled	Tonnes	202,569.45
Recycling rate of reclaimed water	%	8.89
Water consumption intensity	Tonnes/MW	88.35

⁷The scope of GCL SI's water management performance in 2023 includes the four production bases of Hefei GCL SI, Wuhu GCL SI, Funing GCL SI and Xuzhou Xinyu.
⁸The total water consumption of GCL SI in 2023 is the total water intake minus the total amount of wastewater discharge.

Wastewater Control

The Company always complies with the requirements of national and local laws and regulations, and has established and executed the *Wastewater Discharge Control Management System*. We develop and implement comprehensive wastewater collection, treatment and discharge programs for various wastewater following the principle of wastewater diversion and treatment. In addition, according to the regulatory requirements, we install online monitors at the main outlets of production wastewater to monitor the quality of wastewater in real time and ensure compliance with the discharge standards.

The cell manufacturing base Wuhu GCL SI strictly enforces the *Emission Standards of Pollutants for Cell Industry*, the *Wastewater Quality Standards for Discharge to Municipal Sewers*, and the *Environmental Quality Standards for Surface Water* from the industrial wastewater treatment plant of the Xinwu Economic Development Zone in Anhui Province. Based on the standards, we monitor the discharge data of chemical oxygen demand (COD), fluoride, total phosphorus (TP), total nitrogen (TN), and chloride. The wastewater treatment is based on a "primary physical and chemical reaction tank + primary physical and chemical sedimentation tank + secondary physical and chemical reaction tank + secondary physical and chemical sedimentation tank and A/O biochemical tank + secondary sedimentation tank" process to ensure compliant discharge.

During the Reporting Period, GCL SI reported none of incidents of excessive discharge.

Excessive discharge

0 cases

GCL SI Wastewater Discharge Performance in 2023

Disclosure Item	Unit	2023
Total wastewater discharge	Tonnes	2,085,281.91
Suspended solids discharge	Tonnes	21.79
COD discharge	Tonnes	76.54
Ammonia discharge	Tonnes	11.71
Phosphorus discharge	Tonnes	0.29
Fluoride discharge	Tonnes	9.71



1.5 | Emissions and Waste Management

Excessive waste gas emission

0 cases

Waste Gas Management

GCL SI firmly complies with the *Law of the People's Republic of China on Environmental Protection*, the *Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution* and other related laws and regulations, and fulfills the social responsibility for environmental protection. We have formulated the *Waste Gas Emission Control Management System* for production bases to ensure that air pollutants are emitted after treatment to satisfy the requirements of the *Integrated Emission Standard of Air Pollutants* and the *Emission Control Standard of Volatile Organic Compounds for Industrial Enterprises*.

GCL SI has formulated a detailed exhaust gas treatment process for module production bases to adsorb the harmful substances in the waste gas by means of activated carbon adsorption. We have also classified and treated the exhaust gases generated by the main production processes of our cell production bases.

During the Reporting Period, GCL SI reported none of incidents of excessive waste gas emission.

GCL SI Waste Gas Management Performance in 2023

Disclosure Item	Unit	2023
Total waste gas emissions	m ³	5,839,417,312.00
Nitrogen oxides (NOx) emissions	Tonnes	1.43
Sulfur oxides (Sox) emissions	Tonnes	0.25
Non-methane hydrocarbon (NMHC) emissions	Tonnes	5.26
Particulate Matter emissions	Tonnes	2.46

Solid Waste Management

Non-hazardous waste recycling rate

99.93%

In terms of waste management, GCL SI has established guidelines and management tools such as the *Waste Management Regulations*, the *Solid Waste Management System*, the *Hazardous Chemical Safety Management System*, the *Hazardous Waste Management Registration Form*, and the *Hazardous Waste Transfer Note*. We strictly regulate the collection and disposal process of hazardous and non-hazardous wastes, ensure that waste treatment and discharge comply with the relevant environmental standards, and minimize the harm to the environment and health. For non-hazardous waste such as used cells, waste packages and scraps, the Company practices recycling and decontamination management, and adopts disposal methods such as sale for comprehensive utilization and recycling by suppliers, so as to achieve resource conservation and contribute to the circular economy. During the Reporting Period, the Company's non-hazardous waste recycling rate reached 99.93%. For hazardous waste, the Company performs standardized internal storage and entrust a qualified third-party company for compliant disposal, so as to prevent or reduce harm to the environment.

In 2023, GCL SI reported none of significant violations of emissions or leaks.

GCL SI Solid Waste Management Performance in 2021-2023

Disclosure Item	Unit	2021	2022	2023
Total waste discharge	Tonnes	4,006.00	13,325.26	52,238.60 ⁹
Total non-hazardous waste generated	Tonnes	2,400.37	13,465.74	52,218.69
<i>Non-hazardous recycled</i> ¹⁰	Tonnes	-	-	52,184.85
<i>Non-hazardous incinerated</i>	Tonnes	-	-	33.84
Total hazardous waste generated	Tonnes	8.05	15.90	19.91
Hazardous waste disposed ¹¹	Tonnes	-	-	17.82

⁹Due to the significant increase in production capacity at GCL SI in 2023, the Company's waste discharge increased significantly. In the future, the Company will continue to optimize waste management to reduce the negative impacts on the environment.

¹⁰GCL SI began to disclose non-hazardous waste recycled, non-hazardous waste incinerated and hazardous waste disposed from 2023 Sustainability Report.

¹¹The inconsistency between the total volume of hazardous waste generated by GCL SI in 2023 and the total volume of disposal is attributable to the fact that some of the hazardous wastes were processed in early 2024 under a single disposal.



「E」quity

GCL SI proactively fulfills social responsibilities, envisioning a sustainable future where employees, the company, and society grow together. We prioritize talent development, regarding our employees as valuable and reliable growth partners, and strive to create a vibrant and inclusive workplace for them. We are committed to providing fair and reasonable compensation and benefits, establishing communication channels for employees, and fostering harmonious and stable labor relations., so as to promote the mutual development of the Company and our employees. Furthermore, we actively engage in community contribution, achieving harmony between business value and social benefits.

Funing GCL SI has been certified with the Social Accountability 8000 International Standard **(SA8000)**

Hefei GCL SI, Funing GCL SI, and Xuzhou Xinyu obtained the **ISO 45001** Occupational Health and Safety Management System Certification.

Women in middle management	increased by 9.65% compared to 2022	Women in senior management	increased by 13.01% compared to 2022
17.50%		11.90%	

Average training hours per employee	Occupational health and safety training	Average score of employee satisfaction surveys
46.70 hours	43,105 attendances	94.04

UNSDGs supported in this chapter:



2.1 | Labor Rights Protection

Labor rights protection is crucial to GCL SI. For our value chain, respect for labour rights promotes harmonious cooperation among our partners to enhance the sustainable development capacity of the entire chain. We firmly believe that "people-oriented" management philosophy is the cornerstone of long-term stable growth and sustainable development.

Compliant Employment

GCL SI is determined to safeguard the rights and interests of our employees, strictly abides by the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, the *Provisions on the Prohibition of Using Child Labor*, and other applicable laws and regulations at our operational locations.

We support the *Universal Declaration of Human Rights*, the *International Labor Organization's Declaration on Fundamental Principles and Rights at Work*, and other international norms related to human rights.

The Company has developed and disclosed the [GCL SI Code of Business Conduct](#) and the [Human Rights Principles](#), in which the Company clearly commits to protecting the legitimate rights and interests of employees, respecting their freedom of association and collective bargaining rights, and firmly rejecting the use of child labor and forced labor. The Company has formulated and implemented the *Employment Contract Management Regulations*, the *Labor Employment Management Standards*, the *Procedures for Prohibition of Forced Labor*, and the *Measures for the Management of Child Labor and Underage Workers* to further regulate the management of labor and employment. In 2023, GCL SI had no incidents of employing child labor, forced labor, employment discrimination, harassment or other labor human rights violations.

Furthermore, the Company recognizes that the SA8000 is a global standard for social accountability in the workplace and is of great significance to corporate labor conditions, human rights protection and other aspects of social responsibility. Funing GCL SI has obtained the SA8000 certification; Hefei GCL SI has initiated the SA8000 certification process and is expected to be certified in the first half of 2024.



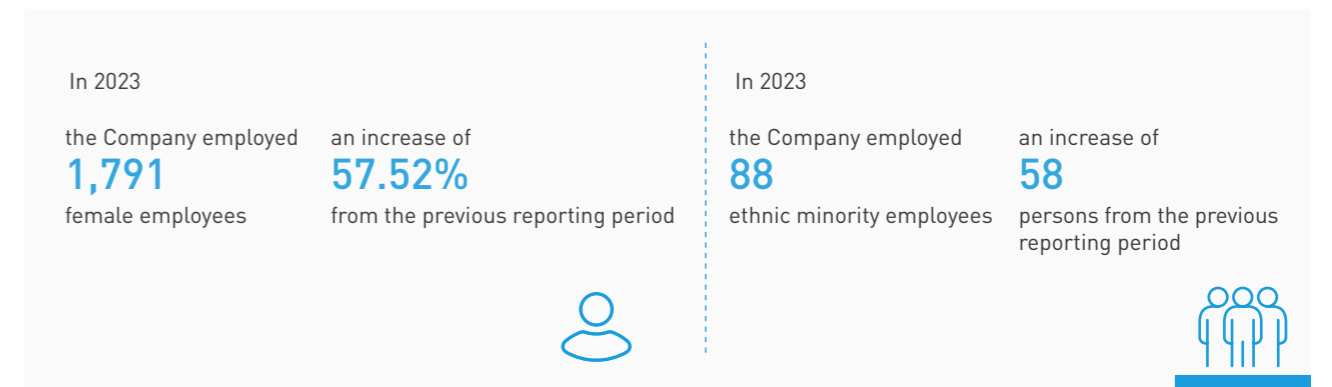
Funing GCL SI has obtained the **SA8000 certification**

Talent Attraction

GCL SI is committed to attracting diverse talents to empower the Company's development. The Company has formulated and implemented the Recruitment Management Standards, the Human Resources Planning Management Standards and other systems, adhering to the employment principles of "fairness, impartiality and openness", and providing equal opportunities to all employees and candidates in accordance with the law. The Human Resources Department is responsible for setting measurable objectives related to diversity, and discussing and agreeing on strategies to enhance diversity among employees of the Company (including senior management) on an annual basis.

In 2023, the Company employed 1,791 female employees, an increase of 57.52% from the previous reporting period, and employed 88 ethnic minority employees, an increase of 58 persons from the previous reporting period.

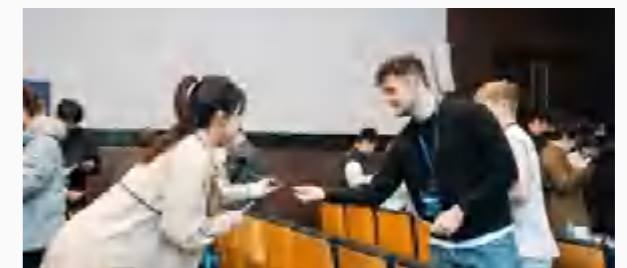
The Company has established a talent reserve database to gradually set up a systematic, scientific human resources and talent development system. With this, we regularly conduct human resources analysis and provide talents for each business line. Meanwhile, the Company attaches great importance to the cultivation of management trainees, selecting outstanding fresh graduates to groom as future leaders through a variety of training initiatives. In this way, the Company achieves the strategy of reserving and developing talents. In addition, the Company provides internal recruitment and transfer opportunities to help employees develop and utilize their talents in positions that better suit their strengths.



Case "GCL Star Program" for global campus recruitment

Since the launch of the "GCL Star Program" for global campus recruitment, GCL SI has been attracting talents from colleges and universities through various recruitment methods such as live streaming career talks, offline campus presentations, and Open Day interview events. In this way, a diversified talent recruitment and cultivation mechanism has been established to build a strong talent reserve with fresh talents.

During the Reporting Period, GCL SI received more than 7,000 resumes from graduates of renowned universities through global campus recruitment, organized 15 online and offline interviews, and employed more than 50 outstanding graduates. 98% of the graduates hired have a master's degree or doctoral degree.



The Open Day interview events of the 2024 Global Campus Recruitment "GCL Star Program"

Compensation and Benefits System

GCL SI focuses on building a fair, just and reasonable compensation management system and a standardized welfare management system, so as to provide employees with competitive compensation and benefits and enhance employee cohesion. Besides, the Company holds all kinds of employee caring activities to enrich their leisure time and enhance their sense of well-being and belonging.

Based on the *Compensation Management Standards*, GCL SI aims to provide employees with competitive compensation. Upholding the principle of equal pay for equal work, we strive to build a fair, just and reasonable compensation management system. In 2023, the Company engaged third-party institutions to conduct a survey on compensation and benefits in the industry, and improved the Company's compensation system based on the results of the survey. These efforts ensured a fair and scientific compensation system and further enhanced our market competitiveness. Employee compensation includes fixed compensation (i.e., base salary) and variable remuneration (including monthly performance-based salary and bonuses). Additionally, based on a comprehensive evaluation of factors such as the achievement of corporate profit targets, work completion, team performance, departmental importance, and individual work performance, the company awards project construction incentives, monthly bonuses, and annual bonuses to its employees.

During the Reporting Period, the Company conducted a comprehensive review and revision of the *Performance Appraisal Management Standards*, stipulating that the achievement of environmental, social and governance (ESG) goals would be gradually incorporated into the annual responsibility targets of senior management.

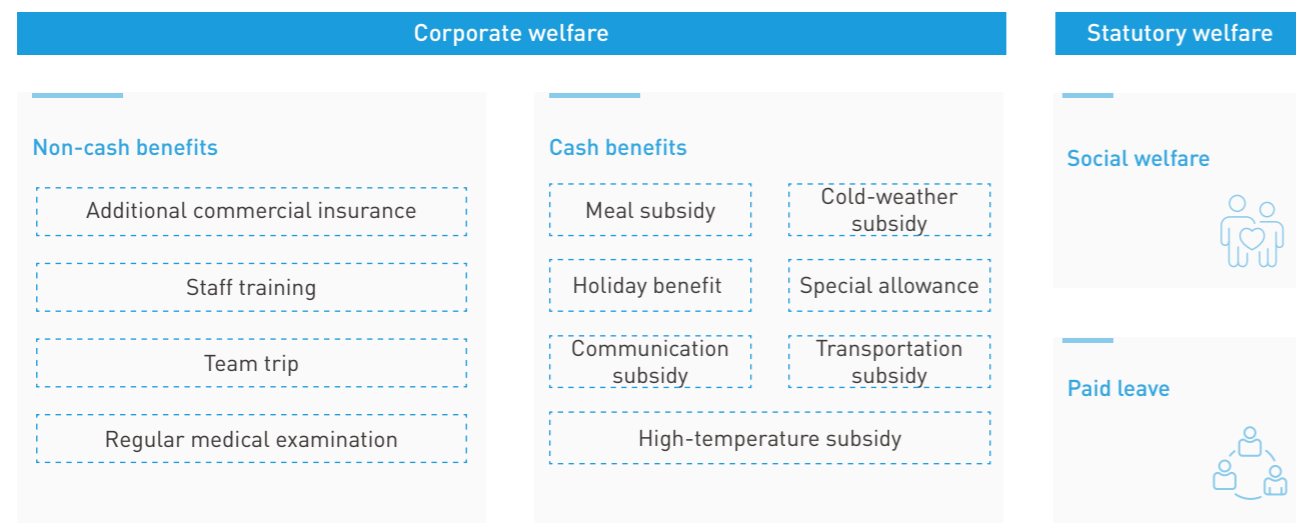
GCL SI has formulated welfare management policies such as the *Welfare Management Standards* and the *Leave Management Standards*, so as to standardize the Company's welfare subjects and payment standards, further enhance the sense of belonging and cohesion among employees, and ensure the Company's advantages in talent attraction and market competition. In addition to statutory welfare such as social welfare and paid leave, the Company also provides employees with cash benefits such as meal allowance, high-temperature and cold-weather subsidies, holiday benefits, communication and transportation subsidies, and non-cash benefits such as medical examinations and team trips.

During the Reporting Period, the social insurance coverage rate of the Company was 100%.

During the Reporting Period

the social insurance coverage rate of the Company was **100%**

GCL SI Welfare structure



Employee Care

To promote and improve our corporate culture and strengthen employee cohesion and harmonious staff relations, GCL SI has organized various employee caring activities based on the principles of "united culture" and "harmonious win-win results" to enrich the spare time of the employees.

Healthy life

The Management Center of GCL SI organized the "Low-carbon Transportation - Cycling with GCL SI" team-building cycling activity at Yangcheng Lake on May 4, 2023, with the aim of encouraging the youth to protect our beautiful planet with practical low-carbon actions.



GCL SI cycling activity at Yangcheng Lake

Collective birthday party

In 2023, GCL SI held a collective birthday party for employees whose birthdays fall between April and May, with the theme of "When Aries meets Taurus". The "birthday people" were invited to participate in celebrating activities, such as singing the birthday song and enjoying delicious cakes together.



GCL SI collective birthday party

Festivals together

In February 2023, on the occasion of the Lantern Festival, Xuzhou Xinyu, Funing GCL SI and other factories organized a series of festival activities such as guessing lantern riddles, making Tangyuan, turning fortune plates, and making Tanghulu.



Funing GCL SI Lantern Festival celebration

Employee Communication

To establish a two-way communication channel between the Company and employees and to create a harmonious, sincere and smooth communication environment, the Company has developed internal policies such as the *Democratic Governance Communication Management Policy*, the *Consultation and Communication Control Procedures* and the *Employee Relationship Management Standards*, to continuously enrich the channels and methods of employee communication. The Company attaches great importance to the construction of communication channels and the management of employee reporting system and protection system, to make sure employees are able, willing and dare to communicate any difficulties they encounter.

Channel Construction

New employee on-boarding talk

We follow new employees for a period of three to six months, helping them become familiar with the environment, policies and culture of the Company. Besides, the Human Resources Department carries out regular interviews with these new employees to help them quickly integrate into the Company.

Staff Forum

the Company organizes at least one Staff Forum per month, and carries out interviews with core employees from time to time. The Staff Forums are organized by the Human Resources Department and attended by the labor union and employee representatives. Staff Forums are also held for representatives of various employee groups. The Company takes into full consideration the proposals proposed by employee representative and publicizes the excellent proposals actually adopted.



The Staff Forum Held by Xuzhou Xinyu with the Theme of "From Employee Voice to a Win-win Future"

General manager's mailbox

The Company has set up a "general manager's mailbox" in places with a good flow of people. The mailbox is managed by the person in charge of employee relations, who collects the letters once a day and deals with the employee opinion letters in a timely manner. Employees who propose suggestions that are beneficial for development of the Company will be rewarded.



The General Manager's Mailbox of Hefei GCL SI

Employee satisfaction survey

The Company conducts an annual employee satisfaction survey. The survey covers dimensions of logistics support, basic training, department atmosphere, leadership and management, security and welfare, and comprehensively reflects the challenges that employees may encounter in their daily work and life. The Company prepares an analysis report on the results of the satisfaction survey and an improvement plan for employee satisfaction, and follows up on the implementation of the improvement measures.



Employee Satisfaction Survey Score of Each Base in 2023



Reporting System

At GCL SI, every employee has the full right to freely raise questions, express concerns and complain about any treatment that is deemed unfair, unreasonable, unethical, harassing or discriminatory.

We encourage all employees to take the initiative to report any violations of employee rights and interests. Employees can report through the labor union of GCL SI, the official complaint and reporting platform (<http://www.gcl-power.com/en/contact/lzxx.html>), or other channels. The Company will treat whistleblower information in strict confidence and firmly protect employees from any form of retaliation for exercising such rights. The Company will take a zero-tolerance attitude towards attempt to retaliate against whistleblowers through threats, intimidation, or personal attacks and will deal with it strictly.



Xuzhou Xinyu's Heart Posthouse

2.2 | Diversity, Equity and Inclusion

Diverse talent matrix is the driving force for the Company's sustainable development. GCL SI advocates for a Company culture of diversity, equity and inclusion. We respect individual differences, and support employees with different backgrounds and experiences to exert their talents and fulfill their self-worth at GCL SI.

GCL SI has established and implemented systems such as the *Management Standards on the Rights and Interests* and *Labor Protection of Female Employees and the Management System on Prohibition of Discrimination and Disciplinary Measures* to ensure that employees are treated fairly and equally in the Company. During the Reporting Period, the Company reviewed, updated and disclosed the [Equality and Diversity Policy](#), and committed to decisively eliminating any form of discrimination and harassment due to factors such as gender, age, ethnicity, race, nationality, religious beliefs, disability and marital status.

To enhance employees' awareness of anti-discrimination, anti-harassment and diversity issues, the Company provides training and communication on these topics to employees. It is worth mentioning that we emphasize the importance of diversity in our sustainability campaigns for senior executives. In addition, the Company has established multiple reporting and complaint channels to encourage employees to report misconduct. For details of the reporting and complaint channels, please refer to section 2.1 "Labor Rights Protection".

During the Reporting Period, the Company did not receive any employee complaints related to discrimination, harassment or human rights issues.

GCL SI values the development of female talents and creates more career opportunities for female employees. In 2023, the number of the Company's female employees increased by 57.52%, with women accounting for 17.50% of middle management, a year-on-year increase of 9.65%. The proportion of women in senior management was 11.90%, a year-on-year increase of 13.01%, demonstrating our strong commitment to gender equality and diversity.

Case Conducting various care activities for female employees to celebrate she-power

GCL SI respects and cares for female employees, and launched various activities on International Women's Day:

- Organized baking workshops, inviting professional bakers to teach the art of crafting cookies and cakes by hand, offering female employees a sweet respite from their busy work schedules and a way to alleviate stress.
- Conducted DIY flower arrangement activities, inviting florists to provide on-site coaching, so that female employees could experience the beauty of nature in the creation of their own hands, and enjoy a cozy time with the aroma of spring blossoms.
- Held a series of themed activities, including flower giveaways, parent-child kite painting and strawberry picking, to create a warm and caring experience and a taste of holiday celebration for female employees.



Baking Workshop

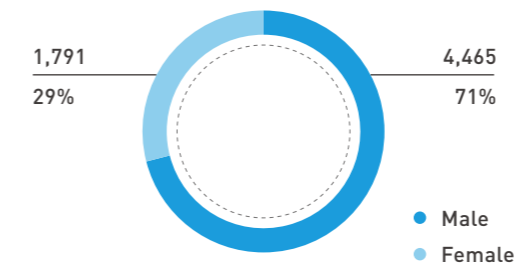


DIY Flower Arrangement

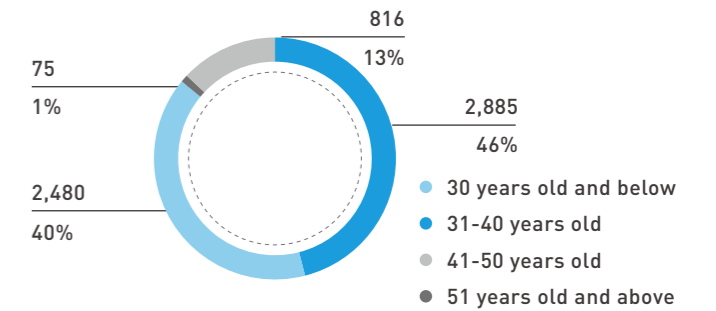
GCL SI Employment Performance in 2023

Disclosure Item	Unit	2023
Total number of employees	Persons	6,256
Proportion of female employees	%	29
The voluntary turnover rate of full-time employees retained for over 1 year	%	15
Total number of new employees	Persons	4,266
Proportion of new female employees	%	26

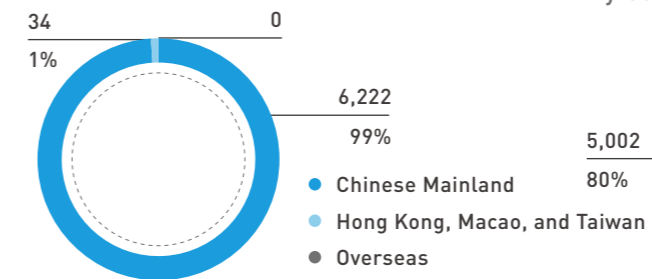
By gender



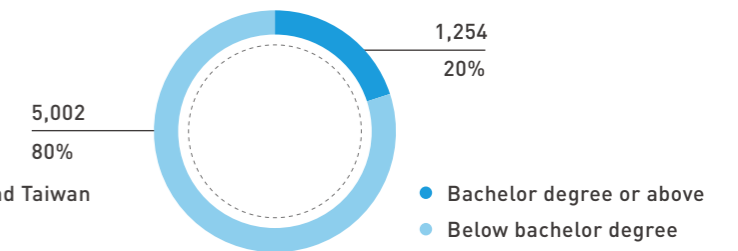
By age



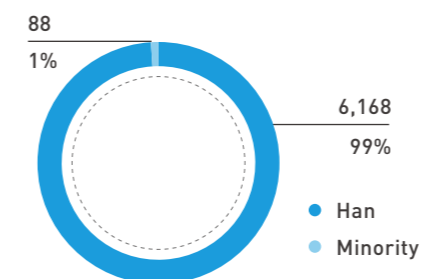
By region



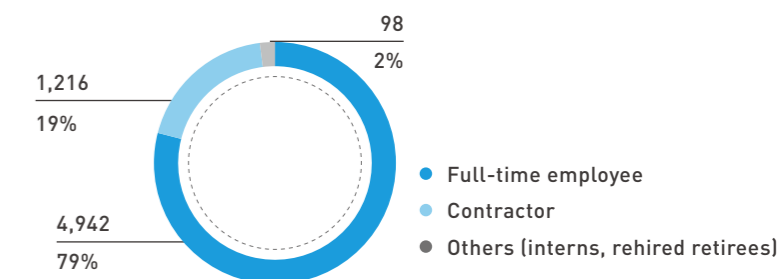
By education



By ethnicity



By employment type



2.3 | Employee Training and Development

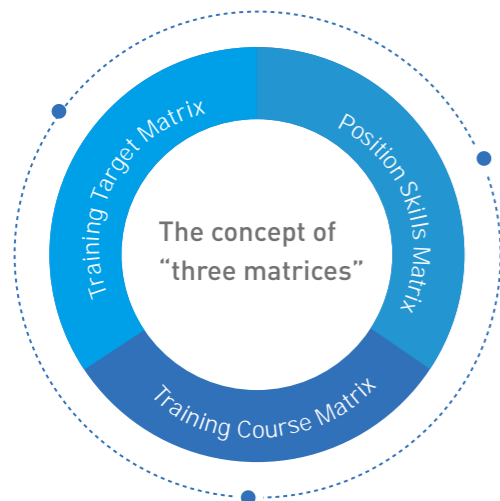
Talent Training

Adhering to the belief in talent development, GCL SI continuously improves the promotion mechanism and performance appraisal standards to inspire the initiative of employees. Meanwhile, supported by a multi-level and all-round training system, the Company provides employees with abundant learning resources, which helps employees grow with the Company.

GCL SI highly values the growth and career development of employees, and provides rich and diversified training opportunities for all full-time and part-time employees. During the Reporting Period, the Company further optimized the *Training Management Standards* and *Management Standards for Training Curriculum*, and added ESG training, aiming to comprehensively enhance employees' sustainability awareness and ability.

The Company follows the concept of "three matrices" and designs the training curriculum based on employees' abilities and career development paths. The Company has fine-tuned the talent training system and carried out training programs aimed at capacity building for employees at different levels, and has established seven training modules based on five major career routes. As evidence of employee performance evaluation and promotion, employees at all levels are required to complete the corresponding courses. We provide all employees with support for training and certification of academic and vocational skills. We have proactively collaborated with Shanghai Jiaotong University, Jinan University, Tianjin University of Technology, Hohai University and other colleges and universities to develop and provide joint training programs for our employees. The Company always encourages employees to acquire more skills and improve their personal qualifications.

The concept of "three matrices"



Training Target Matrix

Establish a position system for employees based on their career development.



Position Skills Matrix

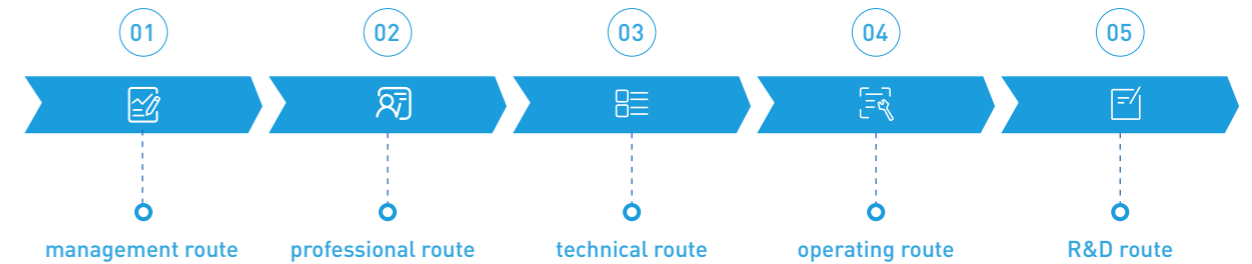
Describe the core responsibilities and the work skills required for the positions.



Training Course Matrix

Develop training courses corresponding to each position based on the requirements of the position skills.

Five career routes



Seven training modules



Case

Wuhu GCL SI develops customized training plans for various employees

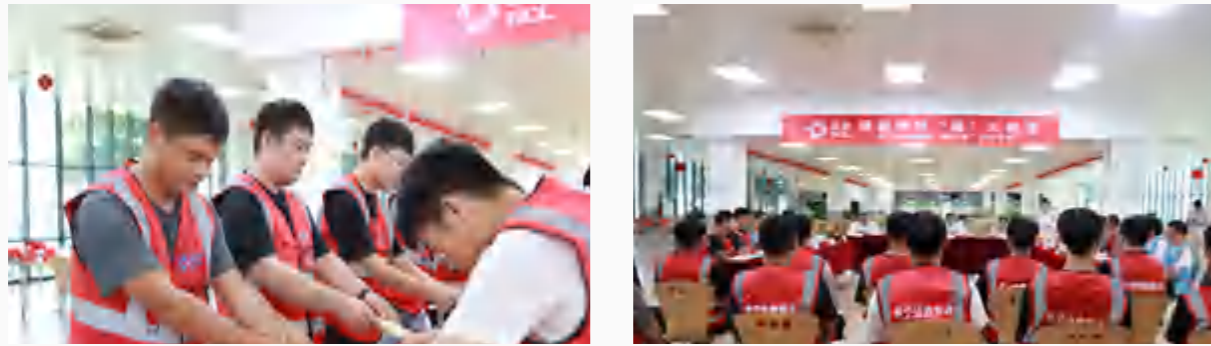
In 2023, Wuhu GCL SI planned 1,493 training sessions, with a total of 1,712 sessions completed during the Reporting Period and more than 62,000 attendances in total.

Wuhu GCL SI provides diversified skill-based training for frontline employees. In July 2023, the Company filed relevant skills training with the local government, organized employees to take part in 30 sessions of skills training, obtained government skills training subsidies of RMB 220 thousand, and received 275 vocational skill certificates. In October 2023, the Company organized 99 employees to participate in the local government's "Heart-warming Community - Pioneer of the People" Vocational Skills Competition, receiving a government subsidy of RMB 29 thousand, of which 48 employees received national certificates of primary and intermediate skills.

Wuhu GCL SI is committed to further improving management performance through leadership training. In July 2023, the Company organized management-specific trainings such as "Communication Power", "Stress and Emotion Management", "Time Management" and "Execution Power" for junior managers.

Case Pairing of Instructors and Trainees - Funing GCL SI Held the "Meet Your Instructor" Ceremony for New Employees

In August 2023, Funing GCL SI held the signing ceremony of "Instructors for Trainees", in which 10 instructors were paired with 20 new employees, aiming to maximize the effectiveness of "experienced employees for new employees" to fully improve the skills of new hires.



Signing Ceremony of "Instructors for Trainees"

Case Hefei GCL SI conducts the Training of Trainers (TTT) to build a high-quality internal trainer team

In August 2023, Hefei GCL SI invited professional lecturers from GCL University to hold "TTT" training. Twenty-seven internal trainers from Hefei GCL SI, Wuhu GCL SI and Funing GCL SI participated this training. The training covered three major topics, namely, course objective setting, course logic framework setting, and course instruction design, which helped the participants to fully understand the key steps of course design and development.



Specialized TTT Training at Hefei GCL SI

Case Hefei GCL SI and Funing GCL SI jointly conduct training for middle and senior management to empower talent development

In September 2023, Hefei GCL SI held the third session of training for middle and senior management, aiming to enhance the perception and mindset of managers and cultivate top corporate talents. The training covered "Goal Oriented Business and Financial Management", "The 7 Habits of Highly Effective People", "GCL Integrity Training" and "Reflections and Learning on Management Reform". 47 middle and senior management members from Hefei GCL SI and Funing GCL SI participated in the training.



The Third Session of Training for Middle and Senior Management at Hefei GCL SI

2023

Total investment in employee training
550.11 RMB 10,000

Completion rate of the annual training plan
100%

GCL SI Talent Training Performance in 2023

Disclosure Item	Unit	2023
Total number of employees trained	Persons	9,003
Total training hours	Hours	292,162
Average training hours per employee	Hours/person	46.70
Average training hours per male employee	Hours/person	50.76
Average training hours per female employee	Hours/person	36.59
Average training hours for senior management level	Hours/person	12.10
Average training hours for middle management level	Hours/person	36.92
Average training hours for junior employees	Hours/person	47.13

Talent Development

In order to establish and improve the GCL SI talent training mechanism and meet the needs of management talents at different levels in the development process of the Company, GCL SI carried out the selection and nomination process for talent pipelines in 2023. Through the three steps of key position analysis, talent review and selection, and talent development, GCL SI has gradually established a systematic and scientific human resource reserve and development system.

GCL SI has formulated internal management policies such as Management Measures for Employee Career Development, Management Standards for Promotion and Demotion and Management Measures for Position Competition to facilitate the career development of talents. The Company is committed to building a fair, just and open promotion mechanism, gradually improving the promotion path for employees, and building an innovative multi-channel path for employee promotion. We have divided employee growth into five promotion paths, i.e., management, professional, sales, technology and operation, and set up promotion paths for position levels and individual levels for each category. We believe that a reasonable and orderly promotion system will fully motivate all employees.

The Company has established the Management Standards for Performance Evaluation to clarify the performance evaluation and assessment mechanism. The performance assessment of all employees is based on both monthly and annual assessments. We prepare different assessment contents for employees of different functions and levels to ensure the fairness and integrity of the performance assessment system. The results of employee performance assessment are leveraged as the basis for merit recognition and commendation, job appointment, training and development, bonus allocation and salary adjustment. Depending on the assessment cycle, the employees will receive at least one face-to-face performance feedback and coaching per quarter or month. Such feedback and coaching help employees summarize shortfalls, clarify goals, enhance skills and improve performance. In 2023, the coverage rate of employee performance appraisal and feedback was 100%.

To optimize the human resources allocation and enhance the efficiency and professionalism of the performance management of the Company, GCL SI carries out management inspections of all business divisions and functional departments at irregular intervals and requires them to make timely rectifications. The inspections include performance management policies, target decomposition and coverage, assessment and policy implementation, face-to-face interview feedback, and result application, with the aim to ensure our performance management system is fair and sound.

2023

the coverage rate of employee performance appraisal and feedback was **100%**

Case GCL SI held promotion reviews and oral defences to ensure an open and transparent promotion path

In October 2023, GCL SI held a total of 17 sessions of on-site review and oral defence for professional and technical skill level with 113 employees participating in the review. The review was carried out in an orderly manner according to the established plan. A total of 40 leaders from the financial supply chain sequence, risk control and legal sequence, digitalization sequence, cell division and module division were invited to serve as judges, and employees from 8 sequences including production technology, financial supply chain, engineering technology and technological product R&D, participated in the review and oral defence. The judges focused on the practical experience and innovation ability of the respondents to conduct a comprehensive evaluation, with the aim of identifying the potential talents, and cultivating and expanding the internal talent pool.



On-Site Promotion Review

Case Hefei GCL SI held vocational skill improvement exams to create a highly skilled talent pool

The subsidized vocational skill improvement exams can reasonably increase the employees' income, and encourage the employees to conduct self-motivated learning and achieve self-breakthrough. Besides, the exams have far-reaching significance for the Company in cultivating multi-skilled employees, creating a highly skilled talent pool, and building a learning organization. In October 2023, Hefei GCL SI carried out a subsidized vocational skill improvement exam for electrician certificate, with a total of 261 participants from different departments.



On-Site Vocational Skill Improvement Exam



2.4 Occupational Health and Safety

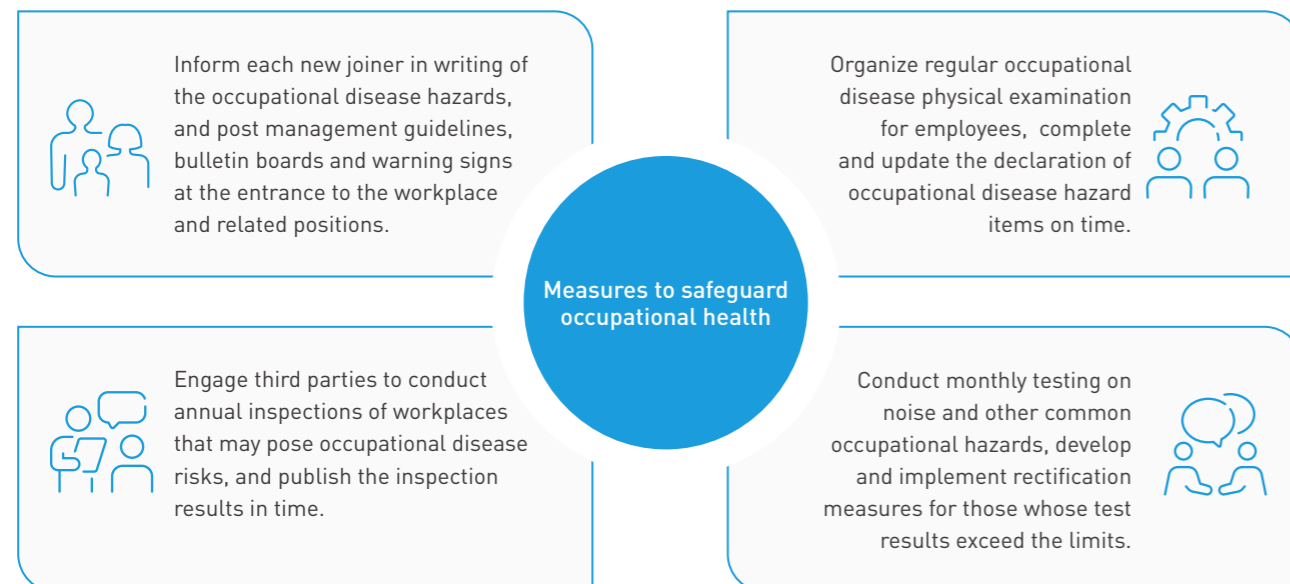
GCL SI insists on the health and safety guideline of "comply with laws and regulations, actively assume social responsibility and build a harmonious environment to ensure a green future for all". We strictly adhere to the relevant laws and regulations, including the *Work Safety Law of the People's Republic of China* and the *Law of the People's Republic of China on the Prevention and Control of Occupational Diseases*. On this basis, we have formulated a series of policies, including the *Occupational Health Management System*, the *Work Safety Responsibility Assessment System*, the *Education and Training System for Work Safety*, and the *Responsibility System for the Prevention and Control of Occupational Diseases*. Hefei GCL SI, Funing GCL SI, and Xuzhou Xinyu have all obtained the ISO 45001 Occupational Health and Safety Management System Certificate.

Hefei GCL SI, Funing GCL SI, and Xuzhou Xinyu have all obtained the **ISO 45001** Occupational Health and Safety Management System Certificate

The Company has set up work safety committees at all factories and requires employees at all levels and in all positions to strictly implement the responsibility system for safe production according to the "Three Musts" principle, i.e., industry development, business growth, and production and operations must be based on work safety. We organize employees at all levels and in all positions to sign the 2023 Environment, Health and Safety (EHS) Target Management Responsibility Statement to implement the responsibility for safe production. This move has effectively formed a responsibility system for safe production integrating territorial management and line management, and raised the level of independent management.

Occupational Health

The Company complies with the relevant provisions of the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases and has established regulations such as the Occupational Disease Emergency Response Plan and the Occupational Health Management System. Our measures to safeguard occupational health are as follows:

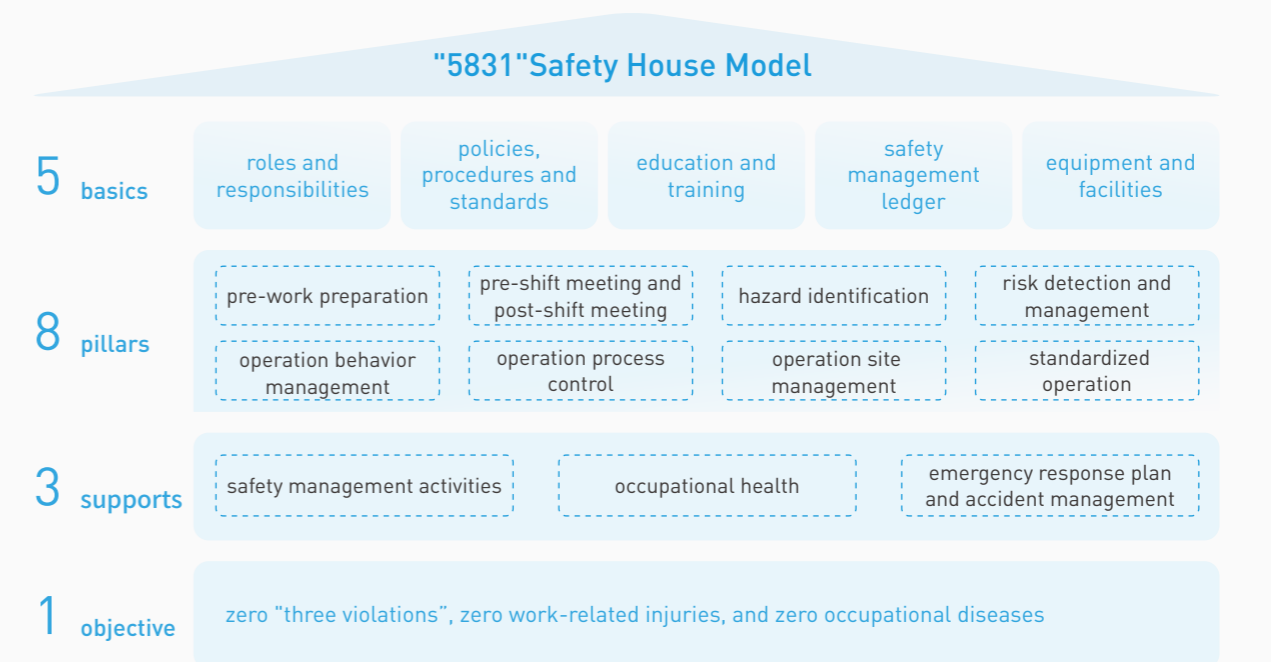


Case Hefei GCL SI sets up a standardized working group to achieve standardized safety management

Adhering to the concept of "safety first, prevention foremost, and comprehensive management", Hefei GCL SI has set up a standardization working group for safety management. By adopting the "5831" Safety House Model, Hefei GCL SI has realized standardized safety management, enhanced the quality awareness of the employees in the working group, and improved the level of on-site safety management.



Photo of Hefei GCL SI's Standardized Working Group



GCL SI Occupational Health and Safety Performance in 2023

Disclosure item		Unit	2023
Number of individuals with work-related health problems	Full-time employee	Persons	0
	Contractor	Persons	0
Number of individuals with work-related injuries	Full-time employee	Persons	5 ¹²
	Contractor	Persons	0
Number of work-related fatalities	Full-time employee	Persons	0
	Contractor	Persons	0
Number of major work-related injuries (excluding fatalities)	Full-time employee	Persons	0
	Contractor	Persons	0
Days of absence due to work-related injuries	Full-time employee	Days	330
	Contractor	Days	0
Total recordable incident rate (TRIR)		-	0.14

The Company actively organizes publicity and education activities on safe production and popularizes occupational health knowledge, in a bid to continuously improve employees' awareness of occupational health. We arrange company-level safety trainings for all new employees. By the end of the Reporting Period, 2,433 new employees had completed Three-level Safety Education.

In 2023, GCL SI conducted a total of 209 training sessions on occupational health and safety for employees, with a total of 564 training hours and 43,105 participants.

2023



GCL SI conducted **209** employee training sessions on occupational health and safety

with a total of **564** training hours

43,105 participants

¹²4 people were injured in traffic accidents while commuting, and 1 was injured during work. In the future, GCL SI will take more optimal measures to guarantee workplace safety and build a solid foundation for employee health and safety.

Case Assuming primary responsibility and establishing safety awareness - Hefei GCL SI conducts specialized safety training

In August 2023, Hefei GCL SI invited external experts to provide a specialized training on the primary duties and responsibilities of safe production for GCL SI's middle and senior management and safety personnel from various departments.

From case alerts and reflection, interpretation of key articles of the Law of the People's Republic of China on Work Safety, implementation of the primary responsibility for safe production, to legal liability, the training thoroughly expounded the top-down "safety first" concept and its significance. This Training has effectively improved the sense of responsibility and safety management capability of safety managers at all levels.



Specialized Safety Training at Hefei GCL SI

Emergency Management

2023

GCL SI conducted **48** emergency drills in total

To standardize the Company's emergency management and improve factories' ability to cope with risks from hazards and prevent accidents, the Company has set up a special group to formulate the Emergency Programs for Production Safety Accidents. Besides, we have organized an expert review committee to revise and improve the emergency programs and have completed the filing and registration with local emergency management agencies.

In 2023, GCL SI developed an annual emergency drill program based on the comprehensive contingency plan and conducted 48 drills in total.

Case Hefei GCL SI conducts emergency evacuation and fire drill

In June 2023, in response to the theme of Safety Month "Everyone Values Safety and Knows Emergency Response", Hefei GCL SI staged batch fire evacuation drills throughout the factory. The goal of the exercise was to further examine how well the Company's emergency rescue system could address emergencies, and whether the employees could successfully evacuate and escape from emergencies.

The drill was conducted in the form of "script + simulation". With hands-on experience, employees can enhance their fire prevention and self-rescue skills, thereby laying a solid foundation for the Company's firefighting work.



Evacuation Drill



Fire Drill

2.5 | Community Contribution

Committed to spreading positive energy in society, GCL SI actively engages in public welfare undertakings to contribute to the construction of a better community. We give back to society with practical actions to make more people feel the warmth and kindness of the Company.

Nurturing on Future Talent

GCL SI is concerned about youth education and understands the importance of nurturing future talents. During the Reporting Period, we established "industry-academia-research" collaborative education bases and launched educational programs on new energy and environmental protection, so as to give young people greater chances for learning and growth.

Case "Industry-academia-research" collaborative education base to help nurture future talents

To actively explore the talent training mode of school-enterprise cooperation and help students upgrade their comprehensive qualities to adapt to society's needs, Hefei GCL SI and Anhui Xinhua University stepped up their efforts on "industry-academia-research" cooperation and jointly established an off-campus internship base.

In collaboration with the university's schools such as Automation Electrical Engineering and Automation, Mechanical Design, Manufacturing and Automation, and Robotics Engineering, we have established a long-term stable cooperation mechanism to jointly cultivate composite talents with innovative consciousness, strong practical skills, and rich technical and managerial experience.

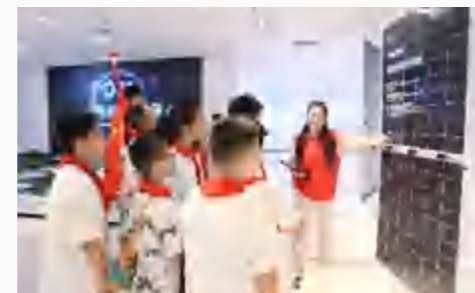


Off-Campus Internship Base Established by Hefei GCL SI and Anhui Xinhua University

Case Caring for left-behind children and lighting up technology dreams

Youth are among the most impacted by climate change, bearing the brunt of its far-reaching consequences on their future prospects and well-being. GCL SI is committed to helping more young people understand renewable energy and join the new energy industry in the future, so as to jointly contribute to green and low-carbon development.

In July 2023, Hefei GCL SI launched an activity "Pursue Dreams - Enter GCL to Explore the PV World", aiming to popularize knowledge about new energy. Led by the lecturers and volunteers, more than 20 Young Pioneers visited the Smart and Green Factory of Hefei GCL SI to get close to new energy products and learn about new energy.



Knowledge Sharing of Renewable Energy

Volunteering Activities

At GCL SI, we are deeply invested in the development of the communities where we operate and are dedicated to fostering a culture of volunteerism. During the Reporting Period, our volunteers took an active part in various activities, aimed at providing convenience to the public, spreading the green low-carbon concept, and helping the disadvantaged groups, making great efforts to promote social harmonious development.

Case Youth Civilization Unit in Hefei

Hefei GCL SI is dedicated to leading young employees to fulfill their duties and participate in social welfare to demonstrate youth vitality. During the Reporting Period, Hefei GCL SI assembled a team of young volunteers, who actively carried out the "Learn from Lei Feng" theme activity and awareness raising campaigns, and advocated for a green and low-carbon lifestyle within the community, encouraging practices such as water conservation, energy saving, and efficient resource use. These volunteer activities not only exemplified the dedication spirit of young employees but also enhanced their sense of social responsibility.

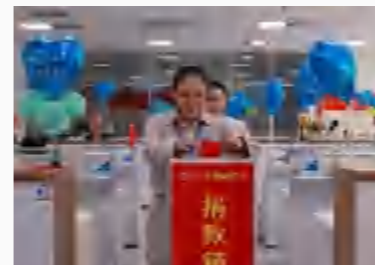
In addition, the labor union organized the "GCL One-Day Donation" activity, which raised a total of RMB 48,529.44. Through this activity, we have upheld the traditional Chinese virtues of aiding those in need and practicing acts of compassion. For the excellent performance of the exceptional youth team, Hefei GCL SI was granted the honorary title of "Youth Civilization Unit" of Feidong County, Hefei in 2023.



Hefei GCL SI Received the Honorary Title of "Youth Civilization" of Feidong County, Hefei City in 2023



"Learn from Lei Feng" Theme Activity



"GCL One-Day Donation" Activity

Case Sending care and warmth to the elderly

On the eve of the Chung Yeung Festival, Hefei GCL SI organized a "Filial Piety Delivering Warmth on Chung Yeung Festival" activity and went to a nursing home to extend regards. 14 party members and staff representatives from Hefei GCL SI presented fruits, milk and other gifts to the elderly and spent time with them chatting and playing chess. The visit brought messages of care and well-wishes, bridging the gap between the enterprise and the elderly community, and fostering a supportive environment that honors and assists the senior population.



Visit to Nursing Home

Supporting Rural Revitalization

GCL SI has actively responded to the national call for rural revitalization and continues the efforts to consolidate and expand the achievements of poverty alleviation. GCL Green Energy goes deep into villages and poverty-stricken areas in Henan, Anhui, Ningxia, Hunan and other provinces to provide professional and efficient intelligent operation and maintenance services for village-level poverty alleviation PV power stations. Such projects not only bring clean energy to the local areas, but also inject new vitality into rural revitalization.

Poverty Alleviation PV Power Station in Jianghua Yao Autonomous County, Hunan Province



GCL SI 40MW Agri-PV Power Station in Suzhou, Anhui Province



E[↑]X_↓cellence

With the mission of "focusing on green development and continuously improving the living environment for humanity", GCL SI is at the forefront of the innovation of green technologies. By strengthening our R&D capabilities and improving product quality and customer satisfaction, we persist in providing robust momentum to the global energy transition.

GCL SI obtained **the new standard IEC 61730:2023 Certification issued by TÜV Rheinland**, an international independent third-party verification organization

Hefei GCL SI, Funing GCL SI, and Xuzhou Xinyu factories all obtained the **ISO 9001** Quality Management System Certificates

Funing GCL SI obtained the **IEC 62941** Quality Management System Certificate for PV module manufacturing

R&D Expense
146.40 RMB million

Number of R&D personnel

240

Number of high-tech enterprises achieved

5

Number of "National Green Factory"

1

Cumulative Number of patents authorized

542

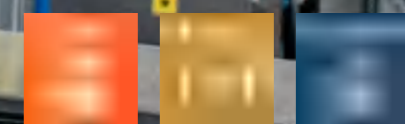
Number of new authorized patents of the year

66

Average customer satisfaction score

95.10

UNSDGs supported in this chapter:



3.1 | Innovation-driven

R&D Management

Adhering to the concept of "technology leading and innovation-driven", GCL SI optimizes the R&D management, promotes product innovation, enhances industrial cooperation and communication, and leads technological breakthroughs in the field of clean energy, thus contributing to the development of the industry.

To ensure the efficiency and systematic approach of our R&D efforts, GCL SI has established an R&D management standard system, and formulated and implemented internal policies, including the *Management Standards for Scientific and Technological Work*, the *Management Standards for Scientific Research Projects*, the *Design and Development Control Procedures* and the *Management Standards for Scientific and Technological Achievements*. These policies standardize the management process of the Company, including technological strategy management, technological incentive management, R&D project management, technical standard management, intellectual property management, and scientific research workstation management. In addition, the Company stays attentive to the latest developments and trends in technology management. We listen to the opinions and suggestions from front-line R&D personnel through technology sequence forums, aiming to constantly update and improve our R&D management system.

Case | Harnessing the power of innovation to fuel corporate growth

Hefei GCL SI and Funing GCL SI jointly held a seminar on "Unleashing the Strength of Scientific Researchers for the Long-term Development of Enterprises", focusing on the development and implementation of valuable ideas, and encouraging the scientific research team to actively make suggestions. The seminar proposed that for the R&D projects of new products, new technologies, new materials, and new equipment, the Company should implement the responsibility system of project manager, and the members of the R&D, technology and process teams should coordinate with each other to complete the projects with high quality. Additionally, we should establish a database for the evaluation of technical skills of our employees in order to encourage the improvement of their professional skills.



The Seminar on "Unleashing the Strength of Scientific Researchers for the Long-term Development of Enterprises"

R&D Platform

With strong R&D capabilities, GCL SI is undertaking 11 national and 26 provincial and municipal-level key science and technology projects. By the end of the Reporting Period, the Company had a total of 240 R&D personnel, an increase of 63.34% over the previous year; and our R&D expenses were 146.40 RMB million, an increase of 80.83% over the previous year. GCL SI owns 5 high-tech enterprises, 1 national postdoctoral workstation, 2 provincial and municipal-level engineering technology research centers, 3 provincial and municipal-level enterprise technology centers, 1 national green factory and 1 provincial-level intelligent factory, providing a solid foundation for the Company's technological innovation.

GCL SI R&D Expense Performance in 2023

Disclosure item	Unit	2021	2022	2023
R&D expenses	RMB 10,000	6,507.5	8,095.98	14,640.12
R&D expenses as a percentage of total revenue	%	1.38	0.97	0.92
Number of R&D personnel	Persons	96	133	240

Intellectual Property Protection

To protect the Company's innovation capability, GCL SI strictly abides by laws and regulations such as the *Trademark Law of the People's Republic of China* and the *Patent Law of the People's Republic of China*. Besides, the Company has formulated and strictly follows internal policies such as the *Intellectual Property Management Standard*, the *Patent Management Standard*, the *Trademark Management Standard* and the *Copyright Management Standard* to comprehensively regulate the protection of intellectual property rights. By the end of 2023, GCL SI had a total of 542 patents, an increase of 22% from the previous Reporting Period.

During the Reporting Period, the Company reported none of infringement of intellectual property rights.

Protecting our own rights and interests

GCL SI attaches great importance to the protection of intellectual property rights and actively engages in registration, filing and application of intellectual property rights. Concerned departments are required to track the registration and authorization of trademarks, patents, trade names, and other intellectual property rights. The intellectual property management department will take proactive measures in case of any potential infringement of the Company's intellectual property rights. The Company also conducts intellectual property awareness campaigns and training.

Respecting the rights of others

To prevent the Company from infringing on the intellectual property rights, the Company has established an intellectual property retrieval system, covering various aspects such as product and technology R&D, creation of the work, the use of trademark, imports and exports, participation in exhibitions, and advertising, which helps avoid intellectual property disputes. Moreover, the contract must include provisions regarding infringement of third-party intellectual property rights to protect both parties' intellectual property rights when cooperating with suppliers or other partners.

GCL SI Performance for Intellectual Property Protection in 2023

Disclosure item	Unit	2023
Cumulative number of patents authorized	Items	542
Cumulative number of invention patents	Items	5
Cumulative number of trademarks and copyrights held	Items	14
Cumulative number of software copyrights held	Items	17
Number of new patent applications of the year	Items	91
Number of new authorized patents of the year	Items	66

Leading Innovation

GCL SI actively participates in various industry activities, providing pioneering PV solutions for global energy consumers, and sharing cutting-edge technological breakthroughs and achievements with leading enterprises in the industry.

Participating in the International Photovoltaic Power Generation and Smart Energy Conference & Exhibition

With various energy storage product solutions, GCL SI participated in the 16th International Photovoltaic Power Generation and Smart Energy Conference & Exhibition (SNEC) and launched the "Lotus" module, which is proven to be able to achieve a power generation gain of up to 12%.



The International Photovoltaic Power Generation and Smart Energy Conference & Exhibition

Participating in Intersolar Europe in Munich, Germany

At Intersolar Europe 2023, GCL SI launched the N-type TOPCon bifacial monocrystalline modules for the first time in Europe. The flagship products, including BIPV TOPCon module, the energy storage products of Evolution series and Honor series, were also exhibited.



Intersolar Europe

Participating in the International Energy Storage Technology, Equipment and Application Conference & Exhibition

Under the theme of "Green Energy Storage, Intelligent Future", the Company showcased a new generation of energy storage equipment and full-scene energy storage solutions at the SNEC ES+ 8th (2023) International Energy Storage Technology, Equipment and Application Conference & Exhibition. At the exhibition, GCL SI showcased the latest cutting-edge solutions and globally successful application practices for the three major application scenarios: large-scale energy storage power stations, industrial and commercial use, and residential use.



The International Energy Storage Technology, Equipment and Application Conference & Exhibition

Sharing industry insights at the World Solar Energy Forum

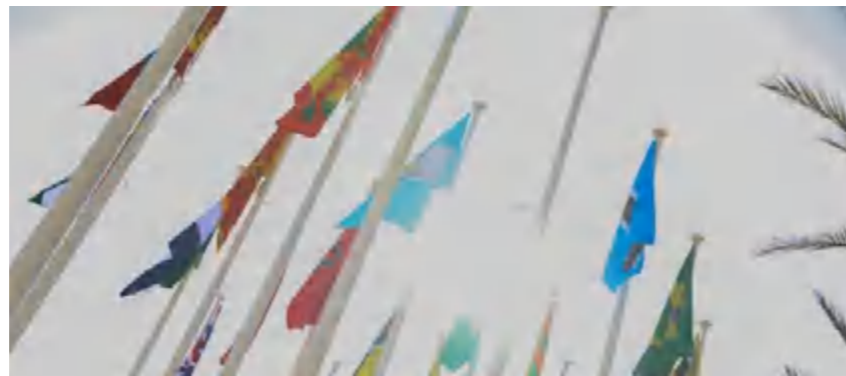
At the second World Solar Energy Forum, with a focus on the frontier progress and future trends of the PV industry, GCL SI presented the Company's technological breakthroughs and innovation achievements in response to industry changes and market challenges, as well as the leading solutions to drive the advancement of renewable energy industry.



The World Solar Energy Forum

3.2 | Industrial Cooperation and Exchange

In December 2023, GCL SI, together with government representatives, international organizations, new energy enterprises, and industry experts from all over the world, gathered at the 28th session of the Conference of the Parties (COP28) to the UN Framework Convention on Climate Change (UNFCCC) to call for a joint global effort to accelerate the green transition. Along the way, we have given full play to our advantages and are actively engaged in various kinds of industry cooperation and exchanges. We collaborate with partners across the supply chain to jointly advance innovation and progress in the photovoltaic industry and global energy transformation, aiming to establish a new framework of mutual benefit and sustainable development.



ESG Global Leaders Conference

In September 2023, the ESG Global Leaders Conference themed "Sustainable Economic Growth, Social Development, and Environmental Protection" took place. As part of the keynote sessions, "China's Carbon Navigators Envision the Future" brought together representatives from renowned new energy and investment companies to discuss the "dual carbon goals" under sustainable development. Zhu Yufeng, Chairman of GCL SI, was invited to attend the conference and delivered a speech titled "ESG Innovation Actions Under the 'Dual Carbon Goals'"



Zhu Yufeng, Chairman of GCL SI, was invited to delivered a speech during ESG Global Leaders Conference

International Forum on Energy Transition

In September 2023, the 4th International Forum on Energy Transition was held. At the forum, GCL SI had extensive exchanges and discussions with the energy administration departments of various countries, the International Renewable Energy Agency (IRENA), and senior officials of outstanding enterprises and institutions in the energy sector. The participants discussed topics including the global need for an energy transition, opportunities presented by clean energy, energy security, and sustainable development. Through this forum, we aimed to foster consensus and cooperation, leveraging collective wisdom and strength to advance global energy transition efforts and combat climate change.



International Forum on Energy Transition

Strategic cooperation agreement with Guizhou Wujiang Hydropower

In May 2023, GCL SI entered into a strategic cooperation framework agreement with Guizhou Wujiang Hydropower Development Co., Ltd. Through complementary advantages, resource sharing, and common development, both parties would establish a strategic partnership in PV module supply, technological innovation, PV power station projects development, and EPC services for the relevant projects.



Signing Ceremony of Strategic Cooperation between GCL SI and Guizhou Wujiang Hydropower

Cooperation with SAEL to forge new path in Indian Market

In August 2023, GCL SI signed a cooperation agreement for the supply of 1.1 GW N-type high-efficiency modules with SAEL Industries Limited ("SAEL"), a leading PV project developer in India. This project represents one of the biggest PV module procurements in the Indian market in recent years. The two parties planned to install more than 2GW of ground-mounted PV projects in India each year, and would engage in in-depth business cooperation as key strategic partners.



Signing Ceremony of Strategic Cooperation between GCL SI and SAEL

Industry Association

GCL SI maintains close communication with mainstream industry associations, in an endeavor to jointly promote the high-quality development of the green energy industry.

Name of the Association	GCL SI's role
China Chamber of Commerce for Import and Export of Machinery and Electronic Products, PV Branch	Vice Chairman Unit
Jiangsu Chamber of International Commerce	Vice Chairman Unit
Shanghai Solar Energy Society	Vice Chairman Unit
China New Energy Overseas Development Alliance	Chairman Unit
Green Energy Industry Development Promotion Association	Vice Chairman Unit
China PV Industry Association Intellectual Property Committee	Standing Committee Member

3.3 | Product Responsibility

GCL SI always adheres to the quality management policy of "Full Participation, Continuous Improvement, Value-added Services, and Customer Satisfaction" and sticks to the concept of "Quality Awareness in Heart, Product Quality on Hand". Through the digital quality management system, quality training and other initiatives, the Company has created a corporate culture focused on "company-wide quality", intending to keep enhancing product quality and provide superior products for customers.

Quality Management System

GCL SI strictly abides by the *Product Quality Law of the People's Republic of China* and the *Standardization Law of the People's Republic of China*, and complies with the internationally recognized standards for quality management systems. Hefei GCL SI, Funing GCL SI, and Xuzhou Xinyu all obtained the ISO 9001 Quality Management System Certificate, while Funing GCL SI also obtained the IEC 62941 Quality Management System for PV module manufacturing.

The Company is actively working on the development of a quality management system by establishing and enforcing a series of management regulations, including the *Quality Management Manual*, the *Integrated Management Manual*, the *Product Monitoring and Measurement Control Procedure* and the *Non-Conforming Product Control Procedure*. With these policies, we have effectively prevented product quality risks, provided prominent products and services, and enhanced customer satisfaction.

In addition, GCL SI has independently developed whole-process quality management information systems, including the "GCL Smart Chain", Warehouse Management System (WMS), and Manufacturing Execution System (MES). These digital systems enable us to real-time collect and analyze data from the entire product production process and achieve digital quality lifecycle management. This has significantly improved production efficiency and product quality, and will further enhance our market competitiveness.

Case

Building Online Supply Chain Management and Control Platform, "GCL Smart Chain", to empower quality management with digitization

GCL SI has independently developed an online supply chain management and control platform, "GCL Smart Chain", which integrates the entire procurement process, including supplier inquiry, bidding, expert grading, procurement approval and qualification review, into the platform, enabling the efficient flow of information and working process. This online platform is conducive to optimizing the end-to-end procurement process and driving digital transformation, while strengthening supplier quality management, standardizing the procurement process, and improving the overall quality of the Company's products.



Interface of "GCL Smart Chain"

Optimizing Quality Process

GCL SI continues the efforts to optimize quality management. We have introduced and implemented a number of quality management and traceability regulations, such as the *Identification and Traceability Control Procedures*, the *Product Recall Control Procedures*, and the *Control Procedures for Corrective and Preventive Actions*.

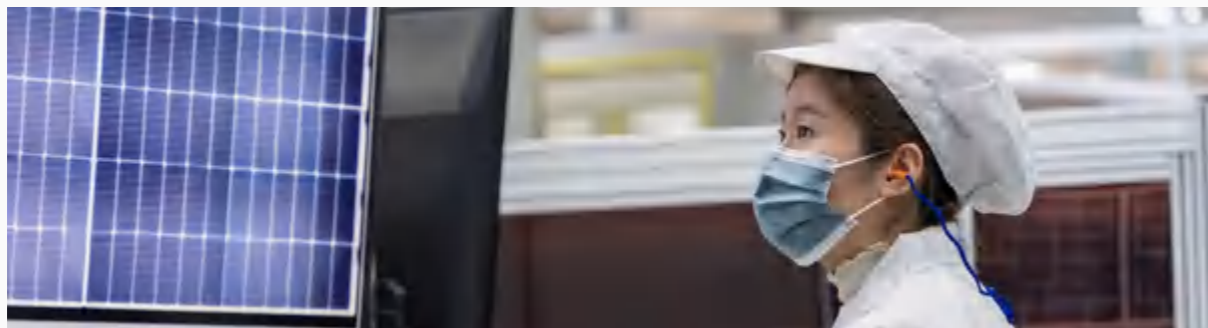
To meet customer demand and maintain competitive advantage, the Company adopts advanced digital technology to replace traditional manual inspection, which greatly improves the inspection efficiency and production quality level. We have also built an industry-leading fully automated assembly line with an automation rate of 79.5%. Our PV testing center has undergone reassessment of national accredited laboratory by China National Accreditation Service for Conformity Assessment and annual audits by authoritative certification organizations such as TÜV Rheinland and Canadian Standards Association (CSA), laying a solid foundation for product quality assurance.

In addition, the Company has set a unique certification QR code for each product. Once unqualified or unsafe products are found, we will recall them immediately. Then, the process and quality departments will examine the returned products and put forward a disposal plan. The process and quality departments will analyze the causes of unsafe products, develop corrective actions, and conduct review analysis and effect verification.

During the Reporting Period, the Company had not recalled any product.

Case Replacing manual inspection with AI technology to improve production efficiency

Using AI technology to inspect products can optimize workforce allocation and reduce production costs with high efficiency and accuracy. GCL SI attaches great importance on the application of AI technology in production. The AI-Integrated Line Scan System possesses the capability to identify defects, with an estimated manpower savings of six personnel per shift, based on an operation with eight lines as the standard. In the future, GCL SI will further facilitate the application of AI technology in production to improve production efficiency and accuracy



AI-Integrated Line Scan System deployed in the production line

Case Conducting supplier quality training seminar to jointly improve product quality

GCL SI highly focuses on the communication and exchange with suppliers and endeavors to build a solid cooperative relationship. We carry out quality exchange activities with suppliers on a regular basis. In August 2023, Hefei GCL SI held quality training and exchange meetings with two cell suppliers to discuss the abnormalities of the production line, explore the causes of the problems in depth, aiming to work together to make improvements until the problems were solved.



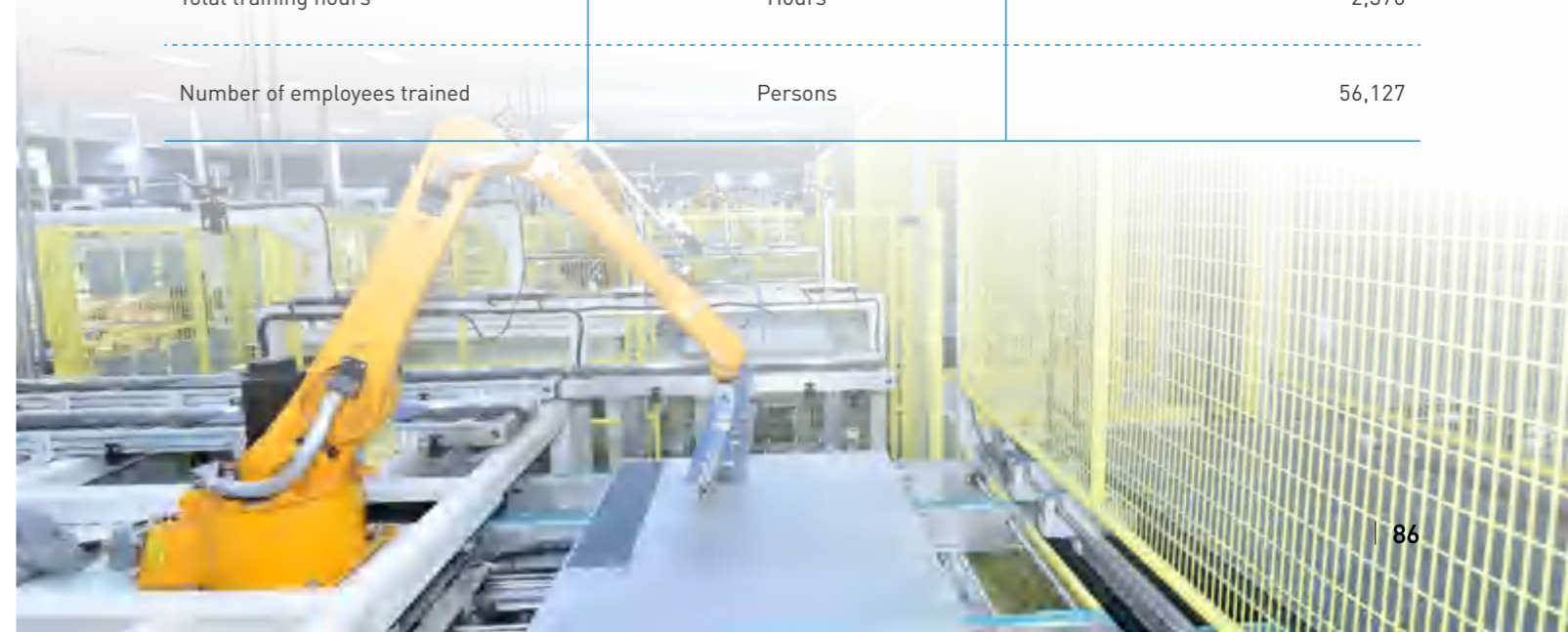
Supplier Quality Training Seminar

Quality and Safety Training

To improve the quality awareness and quality capability of all staff, and to optimize the quality control points and quality processes, the Company has carried out quality and safety training many times during the Reporting Period. We conduct training sessions focused on process quality considerations, equipment and product quality, as well as quality awareness for team leaders. These efforts are aimed at enhancing the quality consciousness and skills of all employees and ensuring effective communication of the key challenges in our company's quality management systems and practical operations.

GCL SI Quality and Safety Training Performance in 2023

Disclosure item	Unit	2023
Total number of training sessions	Times	568
Total training hours	Hours	2,370
Number of employees trained	Persons	56,127



Case Launching "Quality Month" activity and focusing on quality and safety

In 2023, GCL SI actively organized and launched series of quality-themed activities, focusing on quality and safety to enhance employees' awareness of quality and strengthen the Company's quality control capabilities.

Wuhu GCL SI

From May to December 2023, Wuhu GCL SI launched a series of quality activities on the theme of "'Xin' Technology, 'Xin' Quality, 'Xin' Benchmark". The activities include quality basics Q&A, keynote speech, team competition, and quality exemplar selection, intending to form a favorable atmosphere where everyone values quality, thereby enhancing the quality control ability.



Wuhu GCL SI Quality Theme Activity

Xuzhou Xinyu

In September 2023, Xuzhou Xinyu successfully held the Quality Month activity. By organizing skill competitions and knowledge quiz competition, we not only further increased employees' understanding of quality knowledge but also enhanced corporate cohesion as well as market competitiveness.



Quality Month at Xuzhou Xinyu - Offline Knowledge Quiz Competition

Hefei GCL SI and Funing GCL SI

From April to July 2023, Hefei GCL SI and Funing GCL SI jointly held the first "Quality Season" special event with the theme of "Quality Awareness in Heart". Focusing on improving staff's quality awareness and skills, Hefei GCL SI and Funing GCL SI held quality themed activities, such as quality training, fun quizzes, inspection skills competitions, cell replacement skills competitions, etc.



Opening Ceremony of "Quality Season" Special Event at Funing GCL SI



Cell Connection and Replacement Skills Competition at Funing GCL SI

3.4 | Customer Service

A high-quality customer service system is crucial for photovoltaic enterprises. GCL SI enhances customer satisfaction by refining service processes and response mechanisms. At the same time, the company practices responsible marketing, paying close attention to customer needs and rights. By establishing long-term customer relationships based on honesty and transparency, GCL SI promotes the Company's stable growth.

Customer Service System

GCL CL has established an advanced customer service system and formulated internal policies such as the *Control Procedures for Customer Requirements* and the *Management Regulations for Customer Complaints*. These policies are designed to standardize the process of handling customer complaints and opinions to ensure that customer feedbacks are resolved in a timely, reasonable, and effective manner.

The Company values timely responses to customer feedback and has set up a regular-return-visit system in the After-sales Department. Within three months of product delivery and implementation, the after-sales team conducts a follow-up visit to have thorough communication with the customer and assesses their satisfaction, while also inspecting the product's appearance and operational efficiency. The collected data will be analyzed and integrated to generate a detailed case report, which will be fed back to the Sales Department and Customer Purchasing Department to support the closed-loop management.

Customer Satisfaction Score of Each Production Base in 2023

Hefei GCL SI		Funing GCL SI	
Annual average customer satisfaction score	Target customer satisfaction score	Annual average customer satisfaction score	Target customer satisfaction score
98.00	95	98.68	98
Wuhu GCL SI		Xuzhou Xinyu	
Annual average customer satisfaction score	Target customer satisfaction score	Annual average customer satisfaction score	Target customer satisfaction score
90.33	90	93.42	90

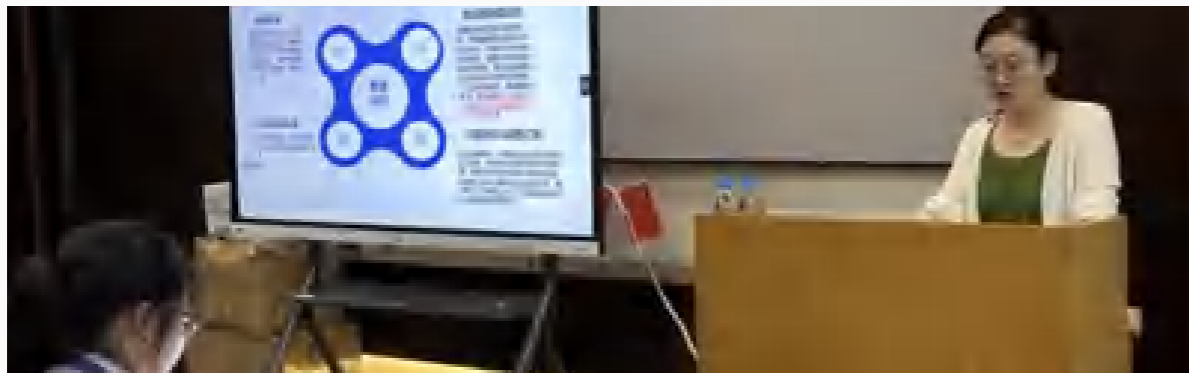


Responsible Marketing

The Company upholds the principles of honest operation and responsible marketing, strictly complies with the *Advertising Law of the People's Republic of China* and other laws and regulations. On such basis, we have established a compliance audit mechanism for products and services, and conduct regular compliance awareness training for all staff. With these efforts, we seek to ensure that the product promotional materials are truthful and accurate, well designed to provide all necessary information, and in conformity with laws and regulations, thus effectively safeguarding customers' right to know. During the Reporting Period, the Company reported none of product marketing violations.

Case Global Marketing Center conducts internal training on responsible marketing

The Company puts the concept of responsible marketing into practice and conducts responsible marketing campaigns. To raise sales teams' compliance awareness and enhance their risk prevention consciousness in responsible marketing, the Company provides trainings on responsible marketing for frontline sales teams. The training topics cover legal affairs for marketing contracts, sales code of conduct, etc., which are designed to guarantee compliance and reliability when promoting and selling products.



Global Marketing Center's Legal Training for Contracts Signing

3.5 | Information Security and Privacy Protection

GCL SI attaches great importance to information security and the protection of personal information. The Company always strictly abides by applicable laws and regulations such as the *Data Security Law of the People's Republic of China*, the *Personal Information Protection Law of the People's Republic of China* and the *Administrative Measures for the Graded Protection of Information Security* to regulate data processing activities and protect customer privacy. GCL SI has formulated internal management systems, including the Network System Management Standards, the Database System Management Standards, the Information Data Security and Mobile Media Confidentiality Management Standards to ensure full coverage and compliance of information security.

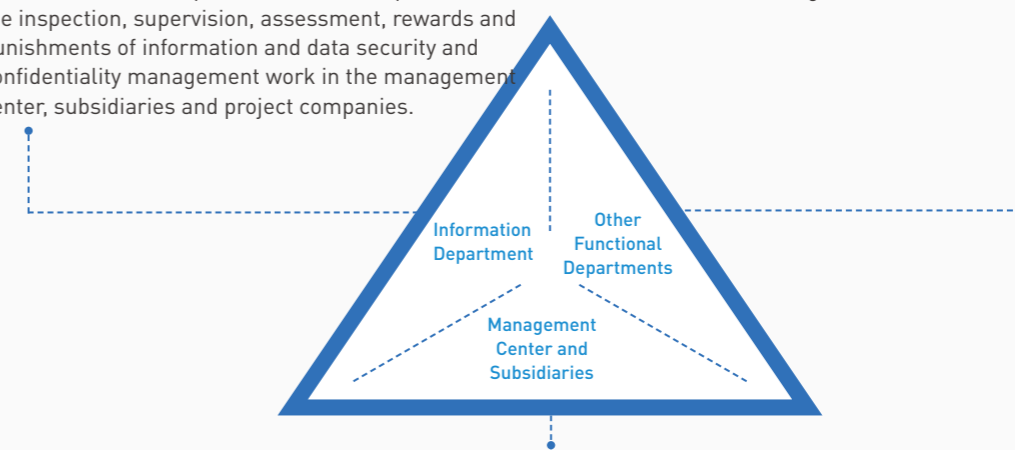
Responsibilities for Information Data Security Management of GCL SI

Information Department

Responsible for implementing and executing information and data security and confidentiality management standards from superior departments. Based on this, the Department is also responsible for the inspection, supervision, assessment, rewards and punishments of information and data security and confidentiality management work in the management center, subsidiaries and project companies.

Other Functional Departments

Responsible for cooperating with the information department to implement relevant regulations on information data security and confidentiality management standard.



Management Center and Subsidiaries

Responsible for implementing and executing information and data security and confidentiality management standards, inspecting and supervising the security and confidentiality management work of the affiliated information system.

GCL SI attaches great importance to data security management. We have taken multiple data protection measures for all-round management on the use of computers and related devices, virus protection of the computer information system, security in the use of the Internet, security of the E-mail system, the security of the computer room, etc. Our purpose is to effectively protect confidential information and data throughout the lifecycle from collection to storage, processing to transmission, and use to destruction in order to reduce the Company's information security risks.

Meanwhile, the Company regularly conducts data security training activities such as special training on enhancing information security awareness, and strengthens the publicity and implementation of data security and private-sensitive data protection policies. By doing so, we ensure that employees are capable of responding to information security challenges, safeguarding information security and privacy protection. During the Reporting Period, the Company held 5 training sessions on information security, covering a total of 100 people.

In 2023, the Company reported none of violations against information security or data leakage incidents.

Trust

GCL SI adheres to the strategic pillar of mutual trust in business to build a high-standard corporate governance system and better fulfill corporate social responsibility. We prioritize the independence and diversity of our Board, ensuring transparent information disclosure and fostering close relationships with our investors. The Company implements strict risk management, compliance and internal control, and strengthens business ethics audits, in order to uphold a fair and just business environment with a transparent reporting mechanism.

Shareholders' meetings

8

Investor presentations

50

Anti-corruption training coverage rate

100%

Business ethics audit projects completed

4 projects

Number of suppliers obtained the ISO 14001 Environmental Management System Certification

77 suppliers

accounting for 81% of all suppliers

Number of suppliers obtained the ISO 9001 Quality Management System Certification

86 suppliers

accounting for 91% of all suppliers

UNSDGs supported in this chapter:



4.1 | Corporate Governance

In recent years, domestic and foreign regulators have consistently reinforced the criteria for independent directors of companies to improve corporate governance structures and enhance supervisory effectiveness. At GCL SI, we recognize that bolstering the independence of the Board is essential for the Company to promote fair and transparent decision making and strengthening risk management, thereby enhancing the overall value and market credibility of the Company. Moreover, we continue to improve the transparency of our information disclosure, so that investors can conduct decision-making analysis based on public information, and identify investment opportunities and risks, contributing to the healthy development and efficient resource allocation of the capital market.

Diversity and Independence of the Board

Board of Directors

Independent Directors

3/9

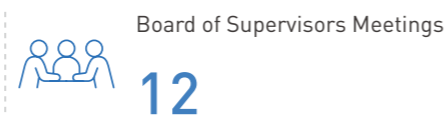
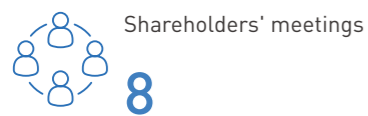
Female Directors

1/9

The independent directors of GCL SI play an essential role in protecting the rights and interests of minority shareholders, reviewing related-party transactions, and monitoring the financial authenticity. To effectively perform the duties of independent directors, GCL SI has continuously revised and improved the internal rules and regulations, such as the Articles of Association, the Rules of Procedure for Shareholders' Meetings, the Rules of Procedure for the Board of Directors, the Rules of Procedure for the Board of Supervisors and the Working Policy for Independent Directors, which stipulate the rights, obligations, nomination and election procedures, and mechanism for exercising special authorities of independent directors. These documents ensure that independent directors can autonomously express their opinions, propose extraordinary shareholders' meetings, conduct independent reviews of material issues, and genuinely uphold the interests of all shareholders, especially minority shareholders. By the end of the Reporting Period, the Board of Directors consisted of 9 directors, 3 of whom are independent directors.

The diversity of the Board enriches decision-making by incorporating a wide range of perspectives and experiences, mitigating the risk of narrow-mindedness within the Company. It fosters innovation, enhances corporate governance, and boosts the overall competitiveness of the Company, thereby fostering long-term stability and value creation. By the end of the Reporting Period, one female director was nominated in the Board of GCL SI.

GCL SI Corporate Governance Performance in 2023



Transparent Disclosure and Investor Relations

GCL SI recognizes that information disclosure is a key means for listed companies to present their operating reality, financial position and material issues to the public, which is of central significance to both companies and investors. We strive for detailed and timely disclosure of information to enhance market credibility.

The Company has established and followed the Measures for the Administration of Information Disclosure, and issued 281 announcements during the Reporting Period, covering financing, periodic reports, related party transactions, equity incentives, meeting resolutions, legal compliance and other contents. Besides, we have issued and implemented the Investor Relations Management Guideline and strengthened bilateral communication with investors through a variety of means, including investors' on-site visits, thematic investor presentations, regular performance briefing, and real-time responses to market concerns through online platforms. This approach ensures information transparency, effective management of investor expectations, and maintains a positive market image.

GCL SI Transparent Disclosure and Investor Relation Performance in 2023



Investors' on-site visits

10

Investor presentations

50

Performance briefing sessions

12

Q&A on exchange interactive platforms

63

4.2 | Risk Management

GCL SI has established an effective risk management system based on the Company's strategies and operation objectives. Additionally, the Company has formulated the *Comprehensive Risk Management Standards* to continuously strengthen risk control capabilities.

The Company has established a risk management organizational system characterized by corporate governance structure, responsible department for risk management, and risk management responsibilities shared by all functional departments. The Company has also built a "three lines of defense" system for risk management, integrating the risk management requirements into the Company's management and business processes to ensure effective risk prevention and control.

Risk Management Committee

- Responsible for decision-making on overall risk management
- Accountable to the Board for the effectiveness of comprehensive risk management
- Determine the Company's overall annual risk preferences and risk management strategies

Responsible department for risk management

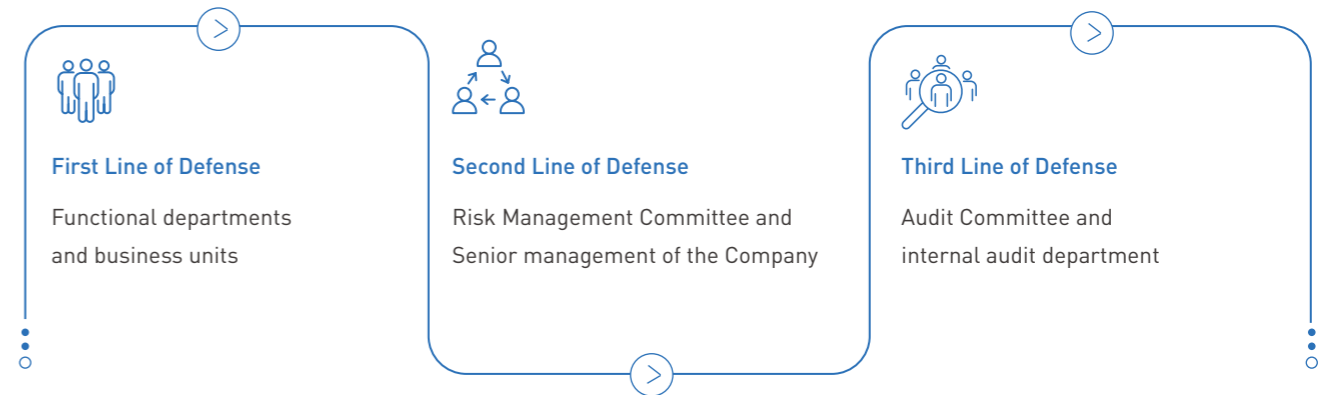
- Responsible for the construction of the Company's risk control system
- Lead and promote the daily work of comprehensive risk management
- Accountable to the Risk Management Committee for the effectiveness of comprehensive risk management



Functional departments and business units

- The primary responsible person for risk management
- Participate in risk management, formulate risk-related decisions, and promote the execution
- Jointly undertake risk management functions and accept the organization, coordination, guidance, and supervision by the responsible department

"Three Lines of Defense" for GCL SI's Risk Management



During the Reporting Period

the Company organized **10** onsite risk management training sessions

and delivered **16** promotional posters

The Company's risk management is centered on the core concepts of "Early Involvement, Indicator Tracking, and Risk Communication". We are involved in key project reviews and process approvals in the early stage and proactively participate in core business activities to effectively prevent risks. We check quantitative risk indicators to dynamically monitor risks in key business processes, and flag risk timely. Furthermore, risk management trainings and promotion across all employees is conducted to enhance risk management awareness and promote enterprise-wide risk control.

During the Reporting Period, the Company organized 10 onsite risk management training sessions and delivered 16 promotional posters.



4.3 | Anti-bribery and Corruption

GCL SI has established a robust risk management and internal control compliance system and adheres to integrity to resist any form of corruption. The Company conducts professional trainings and multiple reporting mechanisms to improve the risk awareness and compliance culture of all employees, establishing a robust foundation for the steady development of the Company amidst a complex and changing market environment.

Compliance and Internal Control

GCL SI has established a robust compliance management system and internal control mechanisms. We have formulated and implemented the *Principles and System of Internal Control Management*, providing a solid guarantee for the Company's compliant operational and sustainable development. During the Reporting Period, the Company optimized and updated the *Guidelines for Internal Audit Work* to further standardize the internal audit workflow and reporting requirements, ensuring efficient internal control. The five essential elements of GCL SI's internal control - control environment, risk assessment, control activities, information and communication, and monitoring - are integrated into the entire process of enterprise management, including the business units and business activities.

Anti-Corruption

GCL SI is committed to the principles of integrity and firmly opposes any form of corruption. We are dedicated to fostering a business environment characterized by integrity, fairness, and transparency. During the Reporting Period, the Company developed and released the *Anti-Corruption Policy*. We undertake to strictly comply with all applicable laws and regulations related to anti-corruption, and conduct regular internal anti-corruption audits and inspections, and work with customers, partners, suppliers and other stakeholders to create a clean and healthy market environment.

In terms of internal management, the Company has formulated the *Anti-Fraud and Reporting Management Standards* to prevent and control fraud-related incidents and clarify the management provisions on corruption, bribery, unfair competition and conflict of interest. Meanwhile, the Company conducts regular anti-corruption trainings for directors and all employees to promote a culture of integrity.

GCL SI Anti-corruption Training Performance in 2023

Coverage rate of anti-corruption training for directors	Anti-corruption training sessions for directors	Anti-corruption training for directors
100%	26 Times	780 Minutes
Coverage rate of anti-corruption training for employees	Anti-corruption training sessions for employees	Anti-corruption training for employees
100%	26 Times	780 Minutes

In external cooperation, the Company is determined to eliminate corruption in the procurement process, and actively promotes the integrity awareness among suppliers. The Company carries out anti-corruption trainings for suppliers during the bidding and tendering process, and signs the *Anti-Commercial Bribery and Integrity Agreement* with suppliers during the execution of contracts for procurement projects.

In addition, the Company holds regular integrity meetings to introduce suppliers to the Company's systems and policies related to integrity building, demonstrating the Company's strong commitment to integrity and honesty. Through these initiatives, we are dedicated to jointly creating a clean and law-abiding business environment and provide a safe and reliable cooperation platform for our partners.

During the Reporting Period, GCL SI did not have any illegal cases resulting from corruption at the Company or employee level.

Reporting Mechanism

To protect the legitimate interests of the Company and ensure independent, objective, and fair investigation and handling of violations, we encourage employees and other stakeholders to report any known or potential misconduct. The Company has established clear reporting and handling management processes, reporting channels and reward standards.

GCL SI has established a strict whistle-blower protection mechanism, requiring all departments to cooperate with each other in accordance with their respective responsibilities and fully protect the legitimate rights and interests of whistle-blowers. The Company strictly prohibits disclosing the information and reported contents of the whistle-blower to the reported personnel and unit, and strictly prevents the leakage of reporting information and loss of whistle-blowing materials. Any person who illegally divulges the information of the whistle-blower or retaliates against the whistle-blower shall, once verified, be dismissed and never be employed.

Reporting Channels

Employees at all levels of the Company and related parties who come across or suspect any unlawful activity must inform the Company via letters, emails (including but not limited to jubao@gcl-power.com), phone calls, face-to-face interviews, and other means.



4.4 Business Ethics

GCL SI adheres to business ethics and abides by the business philosophy of integrity and fair competition. In addition, the Company continues to strengthen information security and privacy protection, effectively safeguards the rights and interests of customers, and enhances social trust.

GCL SI strictly abides by laws and regulations such as the *Criminal Law of the People's Republic of China*, and the *Anti-Unfair Competition Law of the People's Republic of China*, and adheres to the business philosophy of honesty and integrity. The Company has formulated policies and standards such as the *Anti-commercial Bribery and Integrity Agreement* and the *Anti-Fraud and Reporting Management Standards*. In addition, GCL SI has zero tolerance towards acts that violate business ethics such as fraudulent practices, corruption and unfair competition. The Company stipulates that all employees must abide by the relevant provisions on integrity and self-discipline while performing tendering, bidding (or procurement, engineering) projects and contracts. No one shall ask for or offer bribes, kickbacks and commissions, provide or accept any gifts, valuables or any other direct or indirect personal benefits, or divulge or actively inquire about commercial secrets related to the procurement project.

The Company actively organizes trainings on business ethics. From online posters, official accounts and offline special training, we strive to strengthen employees' awareness and understandings of business ethics, and guide them to establish correct business ethics values. In 2023, training on business ethics covered all employees of the Company.

The Company regularly conducts various internal audits including the business ethics audit according to the Guidelines for Internal Audit Work. In 2023, the Company conducted a total of 16 internal audits, including 4 business ethics audits and 5 anti-corruption audits; a total of 121 risk points had been identified. By the end of April 2024, the rectification rate reached 100%.

In 2023, the Company did not have any illegal cases caused by fraudulent practices or corruption.



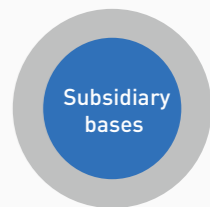
Case GCL SI Conducts Targeted Training on Business Ethics to Improve Training Effectiveness

To meet the needs of employees at different levels, the Company designs different training and promotion programs, and conducts business ethics training on a monthly basis.



Trainings cover interpretation of relevant regulations and case sharing of listed companies, regulatory updates, required knowledge and skills, integrity education, etc., mainly through regular online posters and "Xinzhihai" training session

Posters and Flyers



Trainings cover interpretation of business related laws and regulations and case sharing, required knowledge and skills, risk management, and integrity education, mainly through on-site teaching supplemented by interesting Q&A.



Teaching Sessions

Case **Funing GCL SI Conducted Knowledge Training on Contract Law to Improve Employees' Legal Awareness**

In July 2023, Funing GCL SI conducted knowledge training on the contract law, and a total of 40 people from multiple departments participated in the training. The training aimed to improve the legal awareness of employees in functional departments of the Company, standardize the signing, performance and management of contracts or agreements, and enhance employees' ability to avoid risks. The training mainly focused on three aspects, namely, detailed interpretation of contract law highlights in the Civil Code, detailed interpretation of sales contract highlights and interpretation of relevant legal precedents. The training helped employees understand the legal risks and precautions before and after signing the contract and in the midst of performing the contract, and analyze relevant legal risks in detail based on classic cases.



Contract Law Knowledge Training

4.5 | Responsible Supply Chain

GCL SI sees the supply chain as an essential part of operations and believes that effective supply chain management is important for the sustainable development of enterprises. The Company has formulated and strictly implemented control measures and procedures such as the *Business Partner Code of Conduct*, the *Procedures for Supplier Management* and the *Procurement Process Control Procedure* to systematically manage the procurement process and ensure the steady operation and development of the supply chain.

In 2023, GCL SI reviewed, updated and published the [Business Partner Code of Conduct](#) which includes the following key principles:

- Observe the Universal Declaration of Human Rights, the Conventions No. 1, No. 14, No. 132, and No. 138 of the International Labor Organization (ILO) and similar standards (unless superseded by local laws) to ensure that human rights and personal dignity are respected at all times
- Strictly prohibit child labor and forced labor as defined by the International Labor Organization
- Ensure the freedom of movement and freedom of association of employees
- Strictly prohibit any form of discrimination, harassment, or retaliation
- Ensure that employees are entitled to healthy and safe working conditions
- Comply with local applicable laws on minimum wages, compensation, working hours and benefits
- Ensure that all employee overtime must be voluntary, with compensation offered in accordance with applicable laws
- Implement a consistent environmental protection management program and comply with environmental standards to continuously minimize resource consumption and environmental impact
- Make specific efforts on the reduction of air emissions (including GHG), waste and water use reduction, implementation of sustainable resources, recovery and management processes
- Comply with local applicable laws on competition and anti-corruption
- Conduct responsible sourcing by truthfully and accurately disclosing the manufacturing, production, and sales information of suppliers throughout supply chain, in accordance with the reasonable requirement of GCL SI; and take proper measures for due diligence against suppliers
- Guarantee absolute no use or trading of "Conflict Minerals" when conducting business with GCL SI

GCL SI makes it clear that suppliers who violate the [Business Partner Code of Conduct](#) will face sanctions including suspension or termination of a business relationship.

Supplier Management

GCL SI carries out daily supplier management according to the *Supplier Management Standard* and the *Procurement Process Control Procedure*. We ensure scientific and fair management on suppliers through supplier classification management, supplier grading management, supplier performance evaluation by level and supplier review. During the Reporting Period, the Company further improved the *Supplier Management Control Procedure* and increased the content of supplier training management. Through these measures, we aim to deepen the suppliers' comprehensive understandings of and mastery on the code of conduct for partners, anti-corruption policy, human rights policy and conflict minerals policy of the Company, as well as social responsibilities.

Supplier Management System

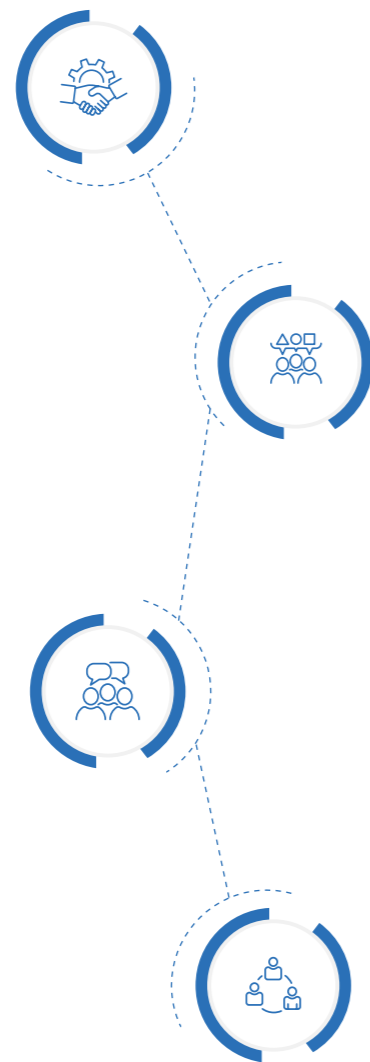
Supplier classification management

Suppliers are categorized as strategic suppliers, preferred suppliers, general suppliers, and rectification suppliers. Particularly for rectification suppliers, if they still fail to meet the standards after rectification, a supplier exit mechanism will be initiated.

Supplier performance evaluation by level

The evaluation is conducted by following the principle of "quality, cost, delivery and service" and is required for all procurement operations. Scores are jointly made by the demand department and relevant departments regarding quality, technology and supply chain. Suppliers will be classified into level I, level II, level III and level IV according to the performance evaluation result. The scope of our performance evaluation covers delivery time, quality, service, price, etc.

Suppliers having a score range of $90 < X \leq 100$ will be classified into level I, $80 < X \leq 90$ into level II, $70 < X \leq 80$ into level III and $X < 70$ into level IV.



Supplier grading management

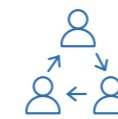
Suppliers are categorised into level I, level II and level III based on factors such as product quality, technological advancement, importance, and supply capacity

Supplier review

GCL SI has classified the review into on-site review and off-site review. We irregularly conduct visits and reviews to strategic suppliers and suppliers having important business relationships with us to understand their operation and production status, quality assurance systems, production costs and financial conditions. We also discuss with these suppliers on issues and suggestions in the cooperation process..

As of the end of the Reporting Period, GCL SI had a total of 95 existing suppliers, including 82 level I suppliers. A total of 74 existing suppliers have signed the anti-bribery/integrity agreements with us. During the Reporting Period, we terminated cooperation with 5 suppliers. We introduced a total of 37 new suppliers, of which 26 are Level I suppliers. Besides, we have signed the anti-bribery/integrity agreements with a total of 26 new suppliers.

2023



A total of

74

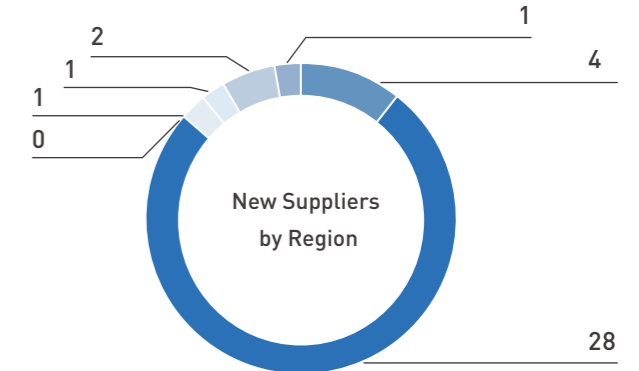
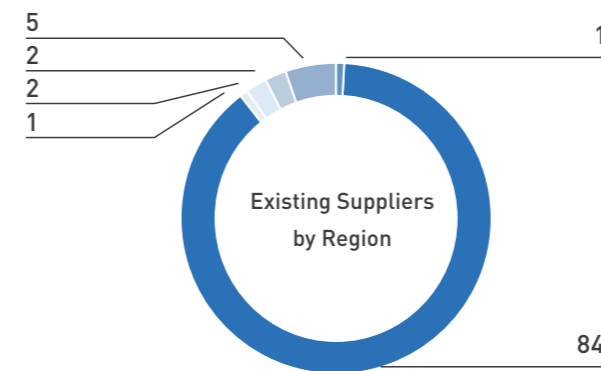
existing suppliers have signed the anti-bribery/integrity agreements

A total of

26

new suppliers have signed the anti-bribery/integrity agreements

GCL SI Supplier Management Performance in 2023



● **North China Region**
(Beijing, Tianjin, Hebei, Shanxi, Inner Mongolia)

● **East China Region**
(Shanghai, Jiangsu, Zhejiang, Shandong, Anhui, Jiangxi, Fujian)

● **Northeast China Region**
(Liaoning, Jilin, Heilongjiang)

● **Central China Region**
(Hubei, Hunan, Henan)

● **South China Region**
(Guangdong, Guangxi, Hainan)

● **Southwest China Region**
(Sichuan, Chongqing, Guizhou, Yunnan, Tibet)

● **Northwest China Region**
(Shaanxi, Gansu, Xinjiang, Qinghai, Ningxia)

Supplier ESG management

The Company deeply recognizes that the ESG impacts and risks in the supply chain may be different from those associated with GCL SI' self-operation. Therefore, to better manage such risks, the Company has integrated ESG control measures into the procurement process. In addition, we also implement the *EHS Assessment Method* together with the *Supplier Management Control Procedure* to ensure the orderly and efficient ESG management in the supply chain.



The proportion of suppliers of Hefei GCL SI and Fuing GCL SI that have signed the safety and environmental protection agreement is

100%



Supplier Selection

- We prioritize suppliers who have obtained the certification of the ISO 9001 Quality Management System, the ISO 14001 Environmental Management System and the ISO 45001 Occupational Health and Safety Management System under equal conditions
- We prioritize collaboration with suppliers who have the product carbon footprint certification or whose products have a relatively low carbon footprint
- Suppliers that provide false documentation are subject to the one-ticket veto system



Supplier Collaboration

- We require suppliers to sign integrity agreements
- We require suppliers to comply with laws and regulations and the Business Partner Code of Conduct
- Companies that experience significant safety incidents are eliminated from our supplier list

GCL SI Supplier ESG Management Performance in 2023

Disclosure Item	2023	
	Proportion to the Total Existing Suppliers	
Existing Suppliers		
Total number of suppliers	95	100%
Number of suppliers having signed the safety and environmental protection agreement	58	61%
Number of suppliers obtained to the ISO 14001 Environmental Management System Certification	77	81%
Number of suppliers obtained the ISO 9001 Quality Management System Certification	86	91%
Number of suppliers obtained the ISO 45001/OHSAS 18000 Occupational Health and Safety System Certification	74	78%
Number of product suppliers obtained the Product Carbon Footprint Certification	17	18%

GCL SI Supplier ESG Management Performance in 2023

Disclosure Item	2023	
	Proportion to the Total New Suppliers	
New Suppliers		
Total number of new suppliers	37	100%
Number of new suppliers passed to the ISO 14001 Environmental Management System Certification	34	92%
Number of new suppliers passed the ISO 9001 Quality Management System Certification	35	95%
Number of new suppliers passed the ISO 45001/OHSAS 18000 Occupational Health and Safety System Certification	30	81%

Conflict Minerals Management

Conflict minerals management is critical for PV manufacturing enterprises, especially solar cell and module manufacturers, as it relates to corporate social responsibility, brand image and supply chain stability. GCL SI has publicly released the [Conflict Minerals Statement](#). In addition, we strictly implement control policies on conflict minerals to ensure that raw materials are purchased ethically. In this way, we avoid the use of conflict minerals that may indirectly exacerbate regional conflicts and human rights abuses. We believe that this will help us maintain the supply chain transparency, abide by international regulatory requirements, and enhance our reputation and competitiveness in the global market. At the same time, it is also a key measure to promote the equitable transformation of the supply chain and to promote the achievement of the sustainable development goals.

When using these materials (especially plating, tin, and copper) to manufacture PV modules, we require suppliers to trace the source of the minerals, sign the *Declaration on Conflict-free Minerals* and provide supporting materials on the traced results. We require that all suppliers comply with the GCL SI's *Conflict Minerals Statement*; and we are also committed to never using or trading "conflict minerals". 100% of the Company's suppliers involved in the risk of "conflict minerals" have signed the Declaration on Conflict-free Minerals.

GCL SI Conflict Minerals Management Performance in 2023



The number of suppliers involved in the risk of "conflict minerals" upon verification

8

Of which the proportion of suppliers having signed the Declaration on Conflict-free Minerals

100%

Appendix

United Nations Global Compact

GCL SI joined the United Nations Global Compact in August 2023. We reaffirm our support for UN Global Compact and its ten principles. We conduct business in accordance with ten principles and meet our social obligations. At the same time, we are committed to achieving the UNSDGs and becoming a reliable long-term partner of the United Nations.

Area	Principle	Response
Human Rights	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and	2.1 Labor Rights Protection 2.2 Diversity, Equity and Inclusion 4.5 Responsible Supply Chain
	Principle 2: make sure that they are not complicit in human rights abuses.	2.1 Labor Rights Protection 4.5 Responsible Supply Chain
Labour	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	2.1 Labor Rights Protection
	Principle 4: the elimination of all forms of forced and compulsory labour;	2.1 Labor Rights Protection 4.5 Responsible Supply Chain
	Principle 5: the effective abolition of child labour; and	2.1 Labor Rights Protection 4.5 Responsible Supply Chain
	Principle 6: the elimination of discrimination in respect of employment and occupation.	2.1 Labor Rights Protection 2.2 Diversity, Equity and Inclusion 4.5 Responsible Supply Chain
Environment	Principle 7: Businesses should support a precautionary approach to environmental challenges;	Carbon Emissions Reduction with Technologies - Digital Carbon Chain Management and Intelligent Manufacturing 1.1 Responding to Climate Change 1.2 Energy Management and Renewable Energy Utilization 1.3 Environmental Compliance and Ecological Protection 1.4 Water Stewardship 1.5 Emissions and Waste Management

Area	Principle	Response
Environment	Principle 8: undertake initiatives to promote greater environmental responsibility; and	Carbon Emissions Reduction with Technologies - Digital Carbon Chain Management and Intelligent Manufacturing 1.1 Responding to Climate Change 1.2 Energy Management and Renewable Energy Utilization 1.3 Environmental Compliance and Ecological Protection 1.4 Water Stewardship 1.5 Emissions and Waste Management
	Principle 9: encourage the development and diffusion of environmentally friendly technologies.	Carbon Emissions Reduction with Technologies - Digital Carbon Chain Management and Intelligent Manufacturing 1.1 Responding to Climate Change 4.5 Responsible Supply Chain
Anti-Corruption	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.	4.2 Risk Management 4.3 Anti-bribery and Corruption 4.4 Business Ethics

Key Performance Table

Economic Performance

Economic Indicator Performance				
Disclosure item	Unit	2021	2022	2023
Revenue	RMB 10,000	470,146.05	835,360.92	1,596,761.03
Total assets	RMB 10,000	929,999.68	1,023,955.00	1,910,936.80
Net income attributable to shareholders	RMB 10,000	-198,288	6,510.83	15,771.95
Basic earnings per share	RMB/share	-0.339	0.011	0.027
R&D investment	RMB 10,000	6,507.70	8,095.98	14,640.12
R&D expenses as a percentage of total revenue	%	1.38	0.97	0.92
Number of R&D technical personnel	Persons	96	133	240
Proportion of the number of R&D technical personnel	%	3.67	3.78	3.83

Environmental Performance

Indicators	Unit	2021	2022	2023
Environmental protection investment	RMB 10,000	-	-	5,107
Energy Consumption				
Indicators	Unit	2021	2022	2023
Natural gas	m ³	79,312	150,729	315,951
Production-based natural gas consumption intensity	m ³ /MW	-	-	16.94
Electricity	kWh	-	-	473,387,732
Including:Renewable energy for self-use	kWh	-	-	37,403,487
Including: purchasing municipal electricity	kWh	126,600,000	150,893,426	432,258,316
Including:Purchasing renewable electricity	kWh	-	-	3,725,929
Consumption of renewable electricity	thousand kWh	-	-	41,129
Proportion of renewable electricity in total electricity consumption	%	-	-	8.69

Energy Consumption				
Indicators	Unit	2021	2022	2023
Production-based electricity consumption intensity	MWh/MW	-	-	25.38
Steam	m ³	2,176.85	3,237.747	6,640
Gasoline	kg	101,698	-	59,974
GHG Management				
Scope 1 GHG emissions	tCO ₂ e	235.68	325.87	1,309.95
Scope 2 GHG emissions (location-based)	tCO ₂ e	65,579.37	87,669.92	250,992.40
Scope 2 GHG emissions (market-based)	tCO ₂ e	-	-	248,867.51
Total Scope1 and Scope 2 GHG emissions (location-based)	tCO ₂ e	65,815.05	87,995.79	252,302.35
Total Scope1 and Scope 2 GHG emissions (market-based)	tCO ₂ e	-	-	250,177.45
Revenue-based Scope 1 and Scope 2 GHG emission intensity (location-based)	tCO ₂ e/RMB 10,000	-	-	0.16
Revenue-based Scope 1 and Scope 2 GHG emission intensity (market-based)	tCO ₂ e/RMB 10,000	-	-	0.16
Production-based Scope 1 and Scope 2 GHG emission intensity (location-based)	tCO ₂ e/MW	-	-	13.53
Production-based Scope 1 and Scope 2 GHG emission intensity (market-based)	tCO ₂ e/MW	-	-	13.41
Scope 3 GHG emissions	tCO ₂ e	-	-	14,408,778
Water Consumption				
Water consumption	m ³	68,769	267,280	1,647,653
Reclaimed water recycled	Tonnes	-	-	202,569.45
Recycling rate of reclaimed water	%	-	-	8.89
Water consumption per unit of production	Tonnes/MW	-	-	88.35

Total Wastewater Discharge				
Indicators	Unit	2021	2022	2023
Total wastewater discharge	Tonnes	424,348	238,949	2,085,282
Suspended solids discharge	Tonnes	-	-	21.79
COD discharge	Tonnes	-	-	76.54
Ammonia discharge	Tonnes	-	-	11.71
Phosphorus discharge	Tonnes	-	-	0.29
Fluoride discharge	Tonnes	-	-	9.71
Solid Waste Discharge				
Total solid waste discharge	Tonnes	4,006.00	13,325.26	52,238.60
Total non-hazardous waste generated	Tonnes	2,400.37	13,465.74	52,218.69
Non-hazardous waste recycling rate	%	-	-	99.93
Hazardous waste	Tonnes	8.05	15.90	19.91
Total amount of disposed hazardous waste ¹³	Tonnes	-	-	17.82
Waste Gas Discharge				
Total waste gas emissions	m ³	786,793,843.00	307,476,003.73	5,839,417,312.00
Nitrogen oxides (NOx) emissions	Tonnes	-	-	1.43
Sulfur oxides (Sox) emissions	Tonnes	-	-	0.25
Non-methane hydrocarbon (NMHC) emissions	Tonnes	-	-	5.26
Particulate Matter emissions	Tonnes	-	-	2.46

¹³The inconsistency between the total volume of hazardous waste generated by GCL SI in 2023 and the total volume of disposal is attributable to the fact that some of the hazardous wastes were processed in early 2024 under a single disposal.

Social Performance

Employment Performance					
Indicators	Unit	2021	2022	2023	
Number of employees	Persons	1,568	3,520	6,256	
By gender	Male	Persons	1,088	2,383	4,465
	Female	Persons	480	1,137	1,791
	Proportion of female employees	%	30.61	32.30	28.63
By employment category	Full-time employee	Persons	1,563	2,276	4,942
	Contractor	Persons	0	1,225	1,216
	Others (interns, rehired retirees)	Persons	5	19	98
By ethnicity	Ethnic minority employees	Persons	-	30	88
By age	Over 50 years old	Persons	57	65	75
	41-50 years old	Persons	243	566	816
	30-40 years old	Persons	831	1,736	2,885
	Under 30 years old	Persons	437	1,153	2,480
By region	Number of employees working in the Chinese mainland	Persons	1,545	3,500	6,222
	Number of employees working in Hong Kong, Macau, Taiwan, and oversea regions	Persons	23	20	34
By education background	Bachelor degree or above	Persons	-	669	1,254
	Below bachelor degree	Persons	-	2,851	5,002
By employee category	Middle management employees	Persons	89	94	120
	Number of female employees in middle management	Persons	19	15	21
	Proportion of female employees in middle management	%	21.35	15.96	17.50
	Number of senior management employees	Persons	35	38	42
	Number of female employees in senior management	Persons	4	4	5
	Proportion of female employees in senior management	%	11.43	10.53	11.90

Employee Training Performance					
Indicators		Unit	2021	2022	2023
Total investment in employee training		RMB 10,000	-	-	550.11
Number of employees trained ¹⁴		Persons	29,469	87,578	9,003
Total training hours		Hours	2,596	3,598	292,162
Average training hours per employee		Hours	29	37	47
By gender ¹⁵	Total training hours for male employees	Hours	1,871	2,598	226,623
	Average training hours per male employee	Hours	-	-	51
	Total training hours for female employees	Hours	683	1,001	65,539
	Average training hours per female employee	Hours	-	-	37
By employment category ¹⁶	Total training hours for non-management level	Hours	2,147	3,119	287,224
	Average training hours for junior employees	Hours	-	-	47
	Total training hours for middle management level	Hours	278	299	4,430
	Average training hours for middle management level	Hours	-	-	37
	Total training hours for senior management level	Hours	171	180	508
	Average training hours for senior management level	Hours	-	-	12
Employee Rights and Interests Performance					
Labor contract signing rate		%	100	100	100
Occupational Health and Safety					
Safety production investment		RMB 10,000	-	335.8	1,470
Total Recordable Incident Rate		%	-	-	0.14
Number of individuals with work-related injuries	Full-time employee	-	-	5	5
	Contractor	-	-	0	0

¹⁴The statistical indicators for 2021 and 2022 are the total number of employees receiving training.

¹⁵GCL SI has disclosed performance data on the number of training hours of employees by gender since 2023.

¹⁶GCL SI has disclosed performance data on the number of training hours of employees by employment category since 2023.

Occupational Health and Safety					
Indicators		Unit	2021	2022	2023
Number of work-related fatalities	Full-time employee	-	-	0	0
	Contractor	-	-	0	0
Days of absence due to work-related injuries	Full-time employee	-	-	330	330
	Contractor	-	-	0	0
Intellectual Property Management Indicator					
Cumulative number of patents authorized		Items	438	445	542
Cumulative number of software copyrights held		Items	17	17	17
Cumulative number of invention patents		Items	-	-	5

Corporate Governance Performance

Corporate Governance Performance					
Indicators		Unit	2021	2022	2023
Number of directors		Persons	9	9	9
Number of independent directors		Persons	3	3	3
Number of female directors		Persons	1	1	1

Anti-bribery and Corruption Performance					
Coverage rate of anti-corruption training for directors		%	-	-	100
Coverage rate of anti-corruption training for employees		%	-	-	100
Number of anti-corruption training sessions for directors			-	-	26
Number of anti-corruption training sessions for employees		Times	-	-	26
Total training hours of anti-corruption training for directors		Minutes	-	-	780
Total training hours of anti-corruption training for employees		Minutes	-	-	780
Number of anti-corruption audit		Times			5

Business Ethics Performance					
Number of business ethics audit		Times	-	-	4

GRI Standards Index

Disclosure	Title	Chapter Index
2-1	Organizational details	About GCL SI
2-2	Entities included in the organization's sustainability reporting	About the Report
2-3	Reporting period, frequency and contact point	About the Report
2-4	Restatements of information	About the Report
Activities and workers		
2-6	Activities, value chain and other business relationships	About GCL SI
2-7	Employees	2.1 Labor Rights Protection 2.2 Diversity, Equity and Inclusion 2.3 Employee Training and Development 2.4 Occupational Health and Safety Key Performance Table
2-8	Workers who are not employees	2.2 Diversity, Equity and Inclusion Key Performance Table
Governance		
2-9	Governance structure and composition	Sustainability Strategy and Governance 4.1 Corporate Governance
2-10	Nomination and selection of the highest governance body	Sustainability Strategy and Governance 4.1 Corporate Governance
2-11	Chair of the highest governance body	Sustainability Strategy and Governance 4.1 Corporate Governance
2-12	Role of the highest governance body in overseeing the management of impacts	Sustainability Strategy and Governance 4.1 Corporate Governance
2-13	Delegation of responsibility for managing impacts	Sustainability Strategy and Governance 4.1 Corporate Governance
2-14	Role of the highest governance body in sustainability reporting	Sustainability Strategy and Governance
2-15	Conflicts of interest	4.3 Anti-bribery and Corruption
2-16	Communication of critical concerns	Sustainability Strategy and Governance
2-17	Collective knowledge of the highest governance body	Sustainability Strategy and Governance

Disclosure	Title	Chapter Index
2-18	Evaluation of the performance of the highest governance body	Sustainability Strategy and Governance
2-19	Remuneration policies	2.1 Labor Rights Protection
2-20	Process to determine remuneration	2.1 Labor Rights Protection
Strategy, policies and practices		
2-22	Statement on sustainable development strategy	Sustainability Strategy and Governance
2-23	Policy commitments	Sustainability Strategy and Governance
2-24	Embedding policy commitments	Sustainability Strategy and Governance
2-25	Processes to remediate negative impacts	Sustainability Strategy and Governance
2-26	Mechanisms for seeking advice and raising concerns	Sustainability Strategy and Governance
2-27	Compliance with laws and regulations	4.3 Anti-bribery and Corruption
2-28	Membership associations	Sustainability Strategy and Governance 3.2 Industrial Cooperation and Exchange
Stakeholder engagement		
2-29	Approach to stakeholder engagement	Sustainability Strategy and Governance
2-30	Collective bargaining agreements	2.1 Labor Rights Protection 4.5 Responsible Supply Chain
3-1	Process to determine material topics	Sustainability Strategy and Governance
3-2	List of material topics	Sustainability Strategy and Governance
3-3	Management of material topics	Sustainability Strategy and Governance
GRI 201 Economic Performance		
3-3	Management of material topics	2023 Sustainable Performance Responses to Changes - An Introduction to GCL SI's Manufacturing Bases of Cells and Modules
201-1	Direct economic value generated and distributed	2023 Sustainable Performance Key Performance Table
201-2	Financial implications and other risks and opportunities due to climate change	1.1 Responding to Climate Change
201-3	Defined benefit plan obligations and other retirement plans	2.1 Labor Rights Protection
201-4	Financial assistance received from government	2.3 Employee Training and Development

Disclosure	Title	Chapter Index
GRI 204 Procurement Practices		
3-3	Management of material topics	4.5 Responsible Supply Chain
GRI 205 Anti-corruption		
3-3	Management of material topics	4.3 Anti-bribery and Corruption 4.4 Business Ethics
205-1	Operations assessed for risks related to corruption	4.4 Business Ethics
205-2	Communication and training about anti-corruption policies and procedures	4.3 Anti-bribery and Corruption 4.4 Business Ethics
205-3	Confirmed incidents of corruption and actions taken	4.3 Anti-bribery and Corruption 4.4 Business Ethics
GRI 302 Energy		
3-3	Management of material topics	1.2 Energy Management and Renewable Energy Utilization
302-1	Energy consumption within the organization	1.2 Energy Management and Renewable Energy Utilization
302-2	Energy consumption outside of the organization	1.2 Energy Management and Renewable Energy Utilization
302-3	Energy intensity	1.2 Energy Management and Renewable Energy Utilization
302-4	Reduction of energy consumption	1.2 Energy Management and Renewable Energy Utilization
302-5	Reductions in energy requirements of products and services	1.2 Energy Management and Renewable Energy Utilization
GRI 303 Water and Effluents		
3-3	Management of material topics	1.4 Water Stewardship
303-1	Interactions with water as a shared resource	1.4 Water Stewardship
303-2	Management of water discharge-related impacts	1.4 Water Stewardship
303-3	Water withdrawal	1.4 Water Stewardship
303-4	Water discharge	1.4 Water Stewardship
303-5	Water consumption	1.4 Water Stewardship
GRI 304 Biodiversity		
3-3	Management of material topics	1.3 Environmental Compliance and Ecological Protection

Disclosure	Title	Chapter Index
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	N/A
304-2	Significant impacts of activities, products, and services on biodiversity	1.3 Environmental Compliance and Ecological Protection
304-3	Habitats protected or restored	N/A
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	N/A
GRI 305 Emissions		
3-3	Management of material topics	1.1 Responding to Climate Change 1.5 Emissions and Waste Management
305-1	Direct (Scope 1) GHG emissions	1.1 Responding to Climate Change
305-2	Energy indirect (Scope 2) GHG emissions	1.1 Responding to Climate Change
305-3	Other indirect (Scope 3) GHG emissions	1.1 Responding to Climate Change
305-4	GHG emissions intensity	1.1 Responding to Climate Change
305-5	Reduction of GHG emissions	1.1 Responding to Climate Change
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	1.5 Emissions and Waste Management
GRI 306 Waste		
3-3	Management of material topics	1.5 Emissions and Waste Management
306-1	Waste generation and significant waste-related impacts	1.5 Emissions and Waste Management
306-2	Management of significant waste-related impacts	1.5 Emissions and Waste Management
306-3	Waste generated	1.5 Emissions and Waste Management
306-4	Waste diverted from disposal	1.5 Emissions and Waste Management
306-5	Waste directed to disposal	1.5 Emissions and Waste Management
GRI 308 Supplier Environmental Assessment		
3-3	Management of material topics	4.5 Responsible Supply Chain
308-1	New suppliers that were screened using environmental criteria	4.5 Responsible Supply Chain

Disclosure	Title	Chapter Index
308-2	Negative environmental impacts in the supply chain and actions taken	4.5 Responsible Supply Chain
GRI 401 Employment		
3-3	Management of material topics	2.1 Labor Rights Protection 2.2 Diversity, Equity and Inclusion
401-1	New employee hires and employee turnover	2.2 Diversity, Equity and Inclusion
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	2.1 Labor Rights Protection
GRI 403 Occupational Health and Safety		
3-3	Management of material topics	2.4 Occupational Health and Safety
403-1	Occupational health and safety management system	2.4 Occupational Health and Safety
403-2	Hazard identification, risk assessment, and incident investigation	2.4 Occupational Health and Safety
403-3	Occupational health services	2.4 Occupational Health and Safety
403-4	Worker participation, consultation, and communication on occupational health and safety	2.4 Occupational Health and Safety
403-5	Worker training on occupational health and safety	2.4 Occupational Health and Safety
403-6	Promotion of worker health	2.4 Occupational Health and Safety
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	2.4 Occupational Health and Safety
403-8	Workers covered by an occupational health and safety management system	2.4 Occupational Health and Safety
403-9	Work-related injuries	2.4 Occupational Health and Safety
403-10	Work-related ill health	2.4 Occupational Health and Safety
GRI 404 Training and Education		
3-3	Management of material topics	2.3 Employee Training and Development
404-1	Average hours of training per year per employee	2.3 Employee Training and Development

Disclosure	Title	Chapter Index
404-2	Programs for upgrading employee skills and transition assistance programs	2.3 Employee Training and Development
404-3	Percentage of employees receiving regular performance and career development reviews	2.3 Employee Training and Development
GRI 405 Diversity and Equal Opportunity		
3-3	Management of material topics	2.2 Diversity, Equity and Inclusion
405-1	Diversity of governance bodies and employees	2.2 Diversity, Equity and Inclusion
GRI 406 Non-discrimination		
3-3	Management of material topics	2.2 Diversity, Equity and Inclusion
406-1	Incidents of discrimination and corrective actions taken	2.2 Diversity, Equity and Inclusion
GRI 407 Freedom of Association and Collective Bargaining		
3-3	Management of material topics	2.1 Labor Rights Protection 4.5 Responsible Supply Chain
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Not involved in operations and suppliers in which the right to freedom of association and collective bargaining may be at risk
GRI 408 Child Labor		
3-3	Management of material topics	2.1 Labor Rights Protection 4.5 Responsible Supply Chain
408-1	Operations and suppliers at significant risk for incidents of child labor	Not involved in operations and suppliers at significant risk for incidents of child labor
GRI 409 Forced or Compulsory Labor		
3-3	Management of material topics	2.1 Labor Rights Protection 4.5 Responsible Supply Chain
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Not involved in operations and suppliers at significant risk for incidents of forced or compulsory labor
GRI 413 Local Communities		
3-3	Management of material topics	2.5 Community Contribution
413-1	Operations with local community engagement, impact assessments, and development programs	2.5 Community Contribution

Disclosure	Title	Chapter Index
413-2	Operations with significant actual and potential negative impacts on local communities	Not involved in operations with significant actual and potential negative impacts on local communities
GRI 414 Supplier Social Assessment		
3-3	Management of material topics	4.5 Responsible Supply Chain
414-1	New suppliers that were screened using social criteria	4.5 Responsible Supply Chain
414-2	Negative social impacts in the supply chain and actions taken	4.5 Responsible Supply Chain
GRI 416 Customer Health and Safety		
3-3	Management of material topics	3.3 Product Responsibility 3.4 Customer Service
416-1	Assessment of the health and safety impacts of product and service categories	3.3 Product Responsibility 3.4 Customer Service
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	3.3 Product Responsibility 3.4 Customer Service

Disclosure	Title	Chapter Index
GRI 417 Marketing and Labeling		
3-3	Management of material topics	3.4 Customer Service
417-1	Requirements for product and service information and labeling	3.4 Customer Service
417-2	Incidents of non-compliance concerning product and service information and labeling	No incidents of non-compliance concerning product and service information and labelling occurred
417-3	Incidents of non-compliance concerning marketing communications	No marketing-related violations have occurred
GRI 418 Customer Privacy		
3-3	Management of material topics	3.5 Information Security and Privacy Protection
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	3.5 Information Security and Privacy Protection

Feedback

Dear Reader:

Thank you for taking the time to read the 2023 Annual Sustainability Report of GCL System Integration Technology Co., Ltd. In our commitment to providing you and other stakeholders with more specialized and valuable information on corporate sustainability, we kindly request your assistance in completing the relevant questions within the feedback form. Your input will be instrumental in guiding us towards further enhancing our sustainability management practices in the future.

Please score the following questions on a scale of 1 to 5 (1 being the lowest score and 5 being the highest score).

1. What's your overall comment on the Report?

1 2 3 4 5

2. Do you think the report can reflect the Company's significant economic influences?

1 2 3 4 5

3. Do you think the report can reflect the Company's significant environmental influences?

1 2 3 4 5

4. Do you think the report can reflect the Company's significant social influences?

1 2 3 4 5

5. Do you think the report can reflect the Company's corporate governance?

1 2 3 4 5

6. Your overall evaluation of the degree of information disclosure in the Report:

1 2 3 4 5

7. Your overall evaluation of the quality of the language presented in the Report:

1 2 3 4 5

8. Your overall evaluation of the design style of the Report:

1 2 3 4 5

9. Which issues in the Report are you most interested in?

10. Do you have any other comments or suggestions on the Report?

Name: _____

Telephone: _____

E-mail: _____

Company: _____

Title: _____

Fax number: _____

You can contact us via phone call, e-mail, or by post. The contact information is listed as follows:

No. 28 Xinqing Road, Industrial Park, Suzhou City, Jiangsu Province (GCL

Energy Center)

0512-69832889

gclsizqb@gclsi.com

www.gclsi.com