



2025

JA Sustainability and ESG Report

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JA Sustainability
and ESG Report **2025**

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About This Report

Reporting Period

This is an annual report covering the period from January 1, 2025 to December 31, 2025 (hereinafter referred to as the "reporting period"). To improve the integrity of the Report, some data may exceed the above range (subject to the specific date indicated).

Reporting Boundary

The Report covers JA Solar Technology Co., Ltd. and its subsidiary manufacturing bases, which is consistent with the scope of the disclosure in the JA Solar Technology Co., Ltd. 2025 Annual Report. Some manufacturing bases consist of multiple companies. Where individual companies are involved in the Report, they will be reflected as such; otherwise, the name of the associated manufacturing base will be used. For ease of presentation, "JA Solar Technology Co., Ltd." is also referred to as "JA", "the Company" or "we" in the Report.

Report Release

This is the ninth sustainability report/ESG report/social responsibility report released by JA and its subsidiaries. The last report was published in April 2025.



Reporting Standards

This Report is prepared in accordance with the *Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange – Sustainability Report (For Trial Implementation)* (hereinafter referred to as the 'Shenzhen Stock Exchange Guidelines') and the *Self-Regulatory Guideline No. 3 for Companies Listed on Shenzhen Stock Exchange – Preparation of Sustainability Reports (2026 Revision)*. Meanwhile, this Report also references authoritative standards and guidelines such as the *Sustainability Reporting Standards of Global Reporting Initiative* (GRI Standard 2021) of the Global Sustainability Standards Board (GSSB), the United Nations Sustainable Development Goals (SDGs), the Ten Principles of the United Nations Global Compact (UNGC), the *IFRS Sustainability Disclosure Standards* of International Sustainability Standards Board (ISSB), and the *European Sustainability Reporting Standards (ESRS)*, and complies with the preparation requirements of the *Sustainability Accounting Standards Board Standards (SASB Standards)*.

Reporting Principles

Materiality: During the preparation process, this Report comprehensively identifies the main stakeholders and their concerns regarding sustainability topics, and makes targeted disclosures on sustainability matters based on the relative importance of these concerns. Details of the double materiality assessment results in this Report can be found in the sections "Stakeholder Engagement" and "Double Materiality Analysis" later in the document.

Quantification: This Report presents key performance indicators (KPIs) related to ESG quantitatively and provides detailed disclosures of the Company's quantifiable performance data over the past three years in the "Key Performance Table". The measurement standards, methods, assumptions, and/or calculation tools for the KPIs in this Report, as well as the sources of conversion factors used, have been explained in the corresponding sections.

Balance: The content of this Report reflects objective facts, ensuring impartial disclosure of both positive and negative information related to the Company during the reporting period.

Consistency: This Report maintains consistency with relevant content from previous years. Any changes in information are explicitly noted in the corresponding sections.

Reliability Assurance

The Company guarantees that the contents of the Report do not contain any false records or misleading statements. The majority of the data in the Report was derived from the Company's original operational records and publicly disclosed official documents, such as its quarterly and annual reports. Unless otherwise specified, the amounts disclosed in the Report are measured in RMB.

Report Statement

The financial data contained in this Report complies with the *Accounting Standards for Business Enterprises* and other relevant accounting systems promulgated by the country, and has been audited in accordance with the *China Internal Audit Principles*, thereby faithfully reflecting the Company's financial indicators and operational status. The Report has undergone internal company review and was prepared with the guidance and evaluation of an external assurance provider to ensure its authenticity, accuracy, and completeness.

Report Access

JA hopes to enhance communication with stakeholders through the release of the Report. The Report can be accessed online and is available in both Chinese and English. You can access the electronic version of the report on the Company's official website at <http://www.jasolar.com>. In case of any ambiguity in the comprehension of the Chinese and English content, the Chinese version shall prevail.

Message from the Chairman



W

At present, the global landscape is characterized by interwoven turmoil and transformation, where the escalating energy crisis has established energy security and green transformation as an international consensus and a unified course of action. Having been deeply rooted in the photovoltaic industry for two decades, JA stays true to its mission of "Developing solar power to benefit the planet." The company champions its G2G sustainability framework ("Green to Green, Green to Grow, Green to Great") and drives the global energy transition through high-quality development.

We are consistently committed to promoting the widespread adoption of photovoltaic power generation through technological innovation. Last year, we set a new world record for the photoelectric conversion efficiency of TOPCon modules, mass-produced the industry's first TOPCon full-screen module, pioneered the finger interconnection technology, and enhanced our capabilities in solar-storage integrated solutions, empowering customers in more regions worldwide to share in green and clean energy through more high-value, scenario-based products.

We are committed to fostering a responsible and resilient industrial value ecosystem. We operate with integrity and compliance, and diligently follow industry self-regulation. For three consecutive years, our information disclosure has been rated "A" (the highest level) by the Shenzhen Stock Exchange. The Company has achieved dual domestic and international standard certification, and was honored with the BSI Standards Pioneer Award. At COP30, we launched our "4F" (Faster, Foster, Fairer, Further) environmental and climate strategy, and spearheaded the Global Solar Sustainability Alliance (GSSA), a joint industry initiative dedicated to advancing sustainability. Together, we are building a collaborative ecosystem for sustainable development.

We remain committed to fulfilling our social responsibility and promoting harmonious development. In partnership with the SEE Foundation, we implemented desertification control projects in Ordos, planting over 30,000 Salix mongolica trees to support ecological restoration and biodiversity conservation. We also sustain investments in areas such as rural revitalization, equitable education, and community harmony to achieve a win-win synergy between corporate growth and social progress.

Ambition reaches far beyond boundaries. Standing at a new starting point, JA will continue to uphold its mission, adhere to a customer-centric approach, and work in concert with our global partners to go far together, painting a new picture of green prosperity for humanity!

Chairman of JA Jin Baofang

April 2026



About JA

Company Overview

JA Solar Technology Co., Ltd. ("JA") is a world-leading provider of photovoltaic (PV) power generation solutions. Founded in 2005 and listed on NASDAQ in 2007. After being privatized and delisted from the US stock market in 2018, the Company was officially listed on the A-share market of the Shenzhen Stock Exchange (Stock Code: 002459) in 2019. The Company's origin and listed registration address are in Ningjin County, Hebei Province, China with its headquarters located in Building 8, North Center, No. 1 Museum East Road, Fengtai District, Beijing, China. Since 2010, the Company has expanded from solely manufacturing cells to integrating across the PV industry chain. After nearly two decades of development, it has built an industrial system comprising four synergistic business segments: the Photovoltaic Business Group, Smart Energy Business Division, Intelligent Equipment Business Division, and Energy Storage Business Division. The PV Business Group and Energy Storage Business Division cover multiple production stages including PV silicon wafers, cells, modules, and energy storage. With 16 overseas sales subsidiaries and over 25,000 employees, the company operates a vertically integrated chain covering silicon wafers, cells, modules, and PV power plants. Its products, sales, and service network extend to 180 countries and regions worldwide, and its module shipments have ranked among the top globally for many consecutive years.

In 2025, JA

Maintained **16** overseas sales subsidiaries

with product sales and service network covering **180** countries and regions globally

Held **2,286** valid patents

Corporate Culture



Vision

Being a great enterprise



Mission

Developing solar power to benefit the planet



Core Values

Being customer-centered, promoting welfare for our staff members, and creating value for the owners



Spirit

Being genuine, simple, respectful and restrained, grateful



Motto

To be an upstanding and responsible person and apply oneself with integrity and industry

2025 Sustainability Impact Map

ESG Ratings



CNI Index ESG Rating **"AAA"** –
Industry ranking: Top 1%



Wind ESG Rating **"AA"** – Industry
ranking: Top 3%



SynTao Green Finance ESG Rating **"A"** –
Industry ranking: Top 2%



MSCI ESG Rating **"BBB"**



S&P Global Corporate Sustainability
Assessment (CSA) Score of **64** – Industry
ranking: Top 7%
Successfully selected for inclusion in S&P Global
the *Sustainability Yearbook (China Edition) 2026*



Morningstar Sustainalytics ESG risk rating
score of **28.4**



Proactive response to the Carbon Disclosure Project (CDP) questionnaire,
achieving a Grade **A** for the water security questionnaire and a Grade **B** for the
climate change questionnaire



JA has been awarded the **Silver Medal** in the EcoVadis sustainability rating,
placing it among the top 15% of companies
assessed globally

JA (Shanghai) has been awarded the **Gold Medal** in the EcoVadis sustainability rating,
ranking in the top 5% of all assessed companies
globally



FTSE Russell ESG Score: **3.3**
(out of 5)



JA's Yangzhou and Fengxian
Manufacturing Bases were awarded the
SSI ESG Audit **Silver Medal**

Sustainability Awards

Award	Awarded By
Listed in the 2025 <i>Fortune</i> China ESG Impact List	Fortune Media Group
Listed in the 2024–2025 Forbes China Sustainable Development Industrial Enterprises List	Forbes China
Received the "Ram Charan Management Practice Award – ESG Practice Award"	Harvard Business Review
Received the 2025 Sedex Supply Chain Award – Environmental Contribution Award	Sedex
Awarded as a 2025 Sustainable Partner	Tüv Rheinland
Received the BSI Standard Pioneer Award	BSI (British Standards Institution)
Selected for the <i>Steady Progress: China Corporate ESG Leaders Report 2025</i> and awarded the "ESG Leader" badge	SynTao Green Finance
Selected for the 2025 China Enterprise ESG Index 100	All-China Environment Federation
Selected for the International Dialogue Poster Exhibition of the Ten-Year Action on China-Foreign Climate Philanthropy	GF60 (Green Finance 60 Forum)
Awarded Best Case for Biodiversity on 520 Social Responsibility Day	CCM CSR Promotion Center
Selected as an Excellent Corporate ESG Case of 2025	Center for Environmental Education and Communications of the Ministry of Ecology and Environment
Selected as a 2025 "Business for Good" Innovative Case	China Charity Federation
Selected as a Best Practice Case for Sustainable Development of a Listed Company	China Association for Public Companies
Awarded for Excellent Corporate ESG Achievements of 2025	Enterprise Management Magazine
Awarded the 2025 China Economic New Energy Green Development Model Enterprise	China Business Journal
Awarded the AUNA Award – 2025 Pioneer Enterprise in Green Energy	Social Responsibility Conference
Awarded the 2025 ESG Crystal Ball Award for Listed Companies	Capital Week



Sustainability Impact

1.08

JA officially joined the Global Solar Council (GSC).



2.25

Sherry Madera, CEO of CDP Global, and her delegation visited JA.



4.14

Sonia Dunlop, CEO of the Global Solar Council, and her delegation visited JA.



5.29

Hua Jingdong, Vice-chair of the International Sustainability Standards Board (ISSB), and his delegation visited JA.



2.20

JA officially joined the International Renewable Energy Agency (IRENA) Coalition for Action.



JA was selected as a member of the Asia-Pacific Economic Cooperation (APEC) Energy Partnership Network for China.



2.28

JA was invited to attend the themed event for the "20th Anniversary of the Promulgation of the Renewable Energy Law of the People's Republic of China".



5.25

JA was invited to attend the inaugural Global Corporate Summit on Building a High-Quality "Belt and Road" organised by the United Nations Global Compact (UNGC), and jointly released the "Global Solar Industry Sustainable Development Joint Initiative" (GSSA) with leading photovoltaic companies.



6.19

JA was invited to attend the 2025 International Sustainability Conference and participate in a roundtable discussion.



7.16

JA was invited to attend the "International Supply Chain Decarbonization Innovation Seminar" organised by the World Business Council for Sustainable Development (WBCSD).



8.28

JA was invited to participate in the 7th China-Arab States Expo.



9.24

JA was invited to attend the 2025 Climate Change Summit.



11.18

JA was invited to attend the 2025 Listed Companies Sustainable Development Exchange Meeting organised by the China Association for Public Companies.



7.17

JA was invited to attend the "Sustainable Markets Initiative (SMI)" China Forum.



**Sustainable
Markets
Initiative**

9.24

A BRICS Government Delegation visited JA.



11.10

JA was invited to attend the 30th UN Climate Change Conference (COP30) and deliver a video address.



12.02

JA was invited to attend the Annual Meeting and 25th Anniversary Celebration of the United Nations Global Compact (UNGC)



**United Nations
Global Compact**

12.05

JA was invited to attend the "Beijing+30" Business Leaders Summit organised by UN Women.



Sustainability Management

In the new wave of global green transformation, sustainable development is shifting from a strategic choice to an indispensable core logic for corporate development. Guided by its "G2G Sustainability Philosophy", JA practises the development concepts of "Green to Green, Green to Grow, Green to Great". The Company continues to deepen its sustainable development practices, constantly improve its management systems, promote the deep integration of sustainability goals with corporate strategy, and actively collaborate with stakeholders to jointly advance the creation and sharing of sustainable value.

G2G Sustainability Philosophy

Since formally introducing its G2G Sustainability Philosophy in 2023, JA has consistently followed its guidance, continuing to cultivate its expertise in areas such as green technology research and development, building a circular economy, and co-creating an industry ecosystem. Starting as a producer of green energy, the Company is evolving into a builder of a green ecosystem, promoting an industrial closed loop and a circular economy through "Green to Green", achieving high-quality development and value sharing through "Green to Grow", and pursuing long-term sustainable and excellent growth through "Green to Great".

Green to green

Sustainability
Concept



A green cycle, forever renewing. Guided by "Green to Green", JA has embedded the concept of a Circular Economy into its industrial DNA. From silicon wafers to modules, from production to application, and then to decommissioning and recycling, we are committed to closing the loop across the entire photovoltaic life cycle. By building zero-carbon factories, promoting clean production processes, and scaling up module recycling technologies, we ensure that every module's end marks the beginning of another cycle. Green is not only the form of energy we output but also the ecological principle that runs through our entire industry. We reshape value through circulation and safeguard the future with a closed loop.

Green to grow

Sustainability
Strategy



Green growth, shared value. JA firmly believes that green transformation is the core engine of high-quality development. Guided by "Green to Grow", we enhance photovoltaic conversion efficiency through technological innovation, lower energy intensity through smart manufacturing, and optimize operational efficiency through digital management. At the same time, we extend the dividends of green growth along the entire value chain—building a green supply chain with our suppliers, sharing low-carbon value with our customers, and co-creating a growth platform with our employees. We bring warmth to growth and achieve win-win in development, making green the foundation of sustainable prosperity.

Green to great

Sustainability
Vision



A green future, a pursuit of excellence. Guided by "Green to Great", JA has charted a course for long-termism. Greatness lies not in sheer scale, but in the value proven through cycles. We answer the defining challenge of our era with climate actions, fulfill our social responsibility through ecological protection, and lead industry transformation with technological breakthroughs. From deserts to oceans, from farmland to schools, JA's photovoltaic modules are converting sunlight into the power of sustainable development. With excellence as our measure and green as our creed, we are ready to join hands with global partners to build a beautiful tomorrow where humanity and nature thrive together.

2030



Environmental Goals

Reduce total scope 1 and scope 2 GHG emissions by 42% from a 2023 base year.

Achieve 100% sustainability-related certifications among mainstream suppliers

2034



Reduce absolute scope 1 and scope 2 GHG emissions by 58.8% by 2034 from a 2023 base year

Reduce scope 3 GHG emissions from purchased goods and services by 63.8% per MW of solar related products produced by 2034 from a 2023 base year

2050

Reduce absolute scope 1 and scope 2 GHG emissions by 90% by 2050 from a 2023 base year

Reduce scope 3 GHG emissions from purchased goods and services, capital goods, fuel- and energy-related activities and upstream transportation and distribution by 97% per MW of solar-related products produced by 2050 from a 2023 base year

Achieve net-zero GHG emissions

Become a global leader in sustainable development

Social Goals

Create full life-cycle green products

Establish a diversified, equitable, and inclusive (DEI) management system

Support sustainable investment and financing

Sustainability Governance



Responsibilities

Strategy Guidance, Supervision, and Review

The Board of Directors, together with its Strategy and Sustainability Committee, serves as the highest decision-making body for JA's ESG work, reviewing ESG-related matters at least twice a year.

The Strategy and Sustainability Committee, as a committee under the Board of Directors, is responsible for leading and supervising the Company's sustainable development work. It oversees the implementation of the *Charter of the Strategy and Sustainability Committee of the Board of Directors*, guides the formulation of the Company's ESG strategy and policies, provides guidance on and approves climate and ESG strategies and targets, and regularly reviews progress and the effectiveness of the methods used to achieve them.

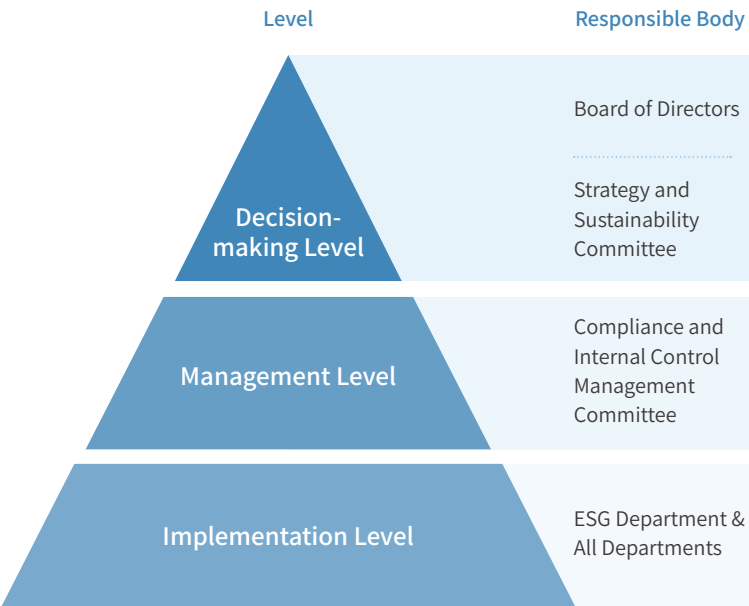
Strategy Formulation, Organization, and Coordination

At the management level, the former "ESG and Sustainability Management Committee", "Internal Control Management Committee", and "Misconduct Handling Committee" were merged into the "Compliance and Internal Control Management Committee". This committee is responsible for implementing the strategic deployments from the decision-making level, formulating the Company's sustainability strategy and objectives, promoting ESG-related matters on a regular basis in accordance with its rules of procedure, and periodically evaluating and optimizing target progress.

Coordinated Working Groups

At the implementation level, an "ESG Department" has been established. It works with key relevant departments to form coordinated working groups responsible for implementing resolutions related to ESG, climate, and sustainable development, participating in ESG practices, driving the implementation of relevant initiatives, and coordinating with relevant personnel across all centers, departments, and manufacturing bases to ensure integrated and collaborative work.

Sustainability Governance Structure



JA's ESG Management Structure

Board Statement

The Board of Directors and its Strategy and Sustainability Committee serve as the highest decision-making and supervisory body for JA's ESG work, holding full responsibility for the strategic guidance, supervision, and review of the Company's material ESG topics. The Company has established a three-level ESG governance structure, comprising the decision-making, management, and implementation levels, to ensure that ESG concepts and practices are integrated throughout its operations and value chain. The Board of Directors has established a regular meeting mechanism to deliberate on ESG-related topics at least twice a year, receiving special reports from the management and implementation teams on work progress, performance, and key risks to systematically review the effectiveness of the ESG strategy's implementation.

During the reporting period, the Board of Directors participated in and guided the Company's annual ESG "double materiality" assessment. Through regular stakeholder communication, industry benchmarking, and external expert analysis, the Board of Directors comprehensively assessed the financial impact of ESG topics on the Company, as well as the positive and negative impacts of its operations and value chain on the environment and society. This process identified key ESG topics and risks highly relevant to the business, defining the ESG materiality matrix and the key focus areas for sustainability management.

The Board of Directors and the Strategy and Sustainability Committee continuously track the achievement of ESG targets and management effectiveness, regularly receiving progress reports from the ESG department and its coordinated working groups. This report provides a true and complete disclosure of the Company's practices and performance in the ESG field and was reviewed and approved by the Board of Directors on 28 April 2026.

Performance-Linked Compensation

JA continuously strengthens the pivotal leadership role of the Board and senior management in sustainability governance. The Company links executive compensation to ESG performance indicators, with assessment dimensions covering material topics such as environmental management, human capital development, business ethics, and information security. By establishing a management cycle of "strategic objectives – performance evaluation – incentive compensation," the Company has effectively enhanced management's execution capabilities and sense of responsibility toward ESG goals.

Stewardship

Stewardship is a critical part of how JA integrates responsible business conduct into its daily operations. It is not only a process for identifying and managing risks on topics such as labor, the environment, and business ethics within our own operations and supply chain, but also our core mechanism for turning commitment into action. The following table outlines our key focus topics and specific management measures in these areas, demonstrating how the Company aligns with international standards to translate stewardship requirements into institutional processes at the levels of policy integration, risk assessment, capacity building, and supplier collaboration.

Dimension	Focus Topics	Management Measures and Tools
 Own Operations	Environmental management: Carbon emissions, water resource management, waste management, etc.	Management systems: Promoting ISO 14001, ISO 45001, SA 8000 and other system certifications.
	Labor and human rights: Forced labor, child labor, anti-discrimination, working hours, etc.	Compliance review: Conducting human rights risk assessments, EHS risk identification, corruption risk assessments, etc.
	Occupational health and safety: Safe production, occupational disease prevention, chemical management, etc.	Capacity building: Conducting regular business ethics training and EHS skills drills for all employees and enhancing ESG and compliance management awareness through monthly ESG newsletters.
 Supply Chain	Environmental management: Supplier pollutant emissions, carbon footprint data, etc.	Access and Signing: Signing documents such as the <i>Supplier Code of Conduct</i> and the <i>Conflict Minerals Statement</i> .
	Social responsibility: Labor rights protection, conflict minerals, information security, etc.	Assessment and Audit: On-site ESG audits, the <i>Supplier Sustainability Assessment Questionnaire</i> , conflict minerals due diligence (e.g., CMRT/EMRT surveys), etc.
	Compliance operations: Anti-bribery, integrity in operations, etc.	Empowerment and Joint Development: Conducting multiple specialized ESG training sessions covering topics such as sustainable development concepts, carbon reduction, SA 8000, and specialized training on labor and human rights.

Professional Empowerment

JA continues to strengthen the ESG capacity of its governance bodies and management teams. In 2025, the Company invited an expert group from the International Sustainability Standards Board (ISSB) to provide in-depth interpretations of the IFRS S1 and S2 standards, encouraging the board and management to systematically review ESG-related risks and opportunities from a financial perspective. Furthermore, the Company regularly provides specialized ESG training for directors, senior executives, and key personnel, focusing on sharing and discussing the latest regulatory developments and industry trends to continuously enhance the professionalism and forward-looking nature of sustainability-related decision-making. During the reporting period, the Company organized two ESG training sessions at the Board of Directors and senior management level.

Stakeholder Engagement

JA adheres to the principle of open and transparent communication, continuously improving its regular communication mechanisms for all stakeholders. The Company actively discloses its sustainability strategy and objectives and the progress of key initiatives through multi-level and multi-channel communication, while extensively listening to the opinions and demands of all parties. Through two-way communication and timely responses, the Company builds long-term, stable, and mutually beneficial partnerships with its stakeholders.

Stakeholder								
	Customers	Government and Regulatory Authorities	Shareholders and Investors	Suppliers and Partners	Senior Executives	Employees	Media, NGOs, Industry Associations, etc.	Community
Key Topics of Concern	Product Quality and Safety Customers Rights Protection Information Security and Privacy Protection	Compliance and Risk Management Corporate Governance Anti-corruption and Business Ethics Addressing Climate Change Emissions and Waste Management Water Resource Use and Management Biodiversity and Ecosystem Protection	Compliance and Risk Management Corporate Governance	Circular Economy Product Quality and Safety Sustainable Supply Chain Management	Compliance and Risk Management Corporate Governance Anti-corruption and Business Ethics	Occupational Health and Safety Human Capital Development	Product Quality and Safety R&D Innovation and Intellectual Property Protection Community Impact and Development	Emissions and Waste Management Water Resource Use and Management Biodiversity and Ecosystem Protection Community Impact and Development
	Product Launch Events Networking Events and Customer Appreciation Meeting Customer Service Hotline, Industry Exhibitions, etc.	Government Supervision and Inspection Government-related Meetings and Websites Government Policy Recommendations, etc.	Shareholders' Meetings Results Briefings Roadshows and On-Site Receptions Investor Communication Activities Online Messages, Emails, etc.	Supplier Exchange Meetings Supplier Empowerment Training Daily Supplier Management, etc.	Company Meetings Daily Communication	Employee Training Employee Communication Employee Team-Building Activities, etc.	Participation in Associations and Initiatives Public Welfare Activities Industry Exchange Conferences, etc.	Environmental Protection Activities Public Welfare Activities, etc.
Communication Channels								

Double Materiality Analysis

To effectively identify the actual and potential impacts of its business activities on the economy, environment and society, and to respond precisely to stakeholder concerns, JA has established a regular annual assessment mechanism. The Company periodically conducts double materiality assessments, using a variety of methods such as internal and external expert seminars and questionnaire surveys to evaluate the financial and impact materiality of topics, providing a reference basis for the orderly advancement of its sustainability management and information disclosure.

Double Materiality Assessment Process

Step One: Identification of Material Topics

We identify sustainable development topics involved in the Company's operations and business relationships, and identify key stakeholders.

8 Stakeholder Groups

Based on its business activities and characteristics, the Company identifies stakeholders such as its management, employees, customers, shareholders and investors, suppliers and partners, government and regulatory bodies, community, and media. A total of 1,849 questionnaire surveys were distributed to conduct the materiality assessments.

7 ESG Standards and Frameworks

- Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange - Sustainability Report (For Trial Implementation)
- IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information
- Global Reporting Initiative (GRI) Standards
- Sustainability Accounting Standards Board (SASB) Standards
- European Sustainability Reporting Standards (ESRS)
- Task Force on Climate-Related Financial Disclosures (TCFD) Framework
- United Nations Sustainable Development Goals (SDGs)

18 Material Topics

Based on six categories of factors, including ESG standards and frameworks, ESG rating requirements in the capital markets, international initiatives, global economic and policy trends, market trends, and the Company's strategies and development needs, the Company identified 18 topics highly relevant to its operations and developed a list of material topics.

Explanation of adjustments to 2025 material topics

2024 Topics	2025 Topics	Explanation of Adjustment
Product Lifecycle Management	Circular Economy	Aligned with the topics in the Shenzhen Stock Exchange's <i>Guidelines</i> to cover resource management throughout the entire process from design and production to recycling and reuse.
Diversity and Equal Opportunity	(Incorporated into) Human Capital Development	Incorporates diversity-related content into the unified description of "Human Capital Development".
Supplier Management	Sustainable Supply Chain Management	Changed to "Sustainable Supply Chain Management" to explicitly include ESG risk management and control, as well as responsible sourcing.
Industry Development Promotion	(Incorporated into) R&D Innovation and Intellectual Property Protection	Highlights related to industry development are incorporated into the unified description of the "R&D, Innovation and Intellectual Property Protection" topic.
Sustainability Governance	(Incorporated into) Corporate Governance	Functions related to sustainability governance are incorporated into the unified description of the "Corporate Governance" topic and are no longer listed separately.

Step Two: Assessment of Material Topics

For the 18 identified topics, the Company further assesses elements such as the current and potential impacts, risks, and opportunities (IROs) associated with each topic, its position in the value chain (e.g., upstream raw material procurement, own production and operations, downstream product use and recycling), and the impact period (short, medium, long term).

Step Three: Analysis of Material Topics

Financial Materiality Assessment

For "financial materiality", the Company invited directors, senior executives, and relevant personnel from finance, compliance, ESG, and other functions to assess the potential impact of each topic on the Company's financial position, operating results, and cash flows from the perspectives of "degree of impact" and "likelihood of occurrence", taking into account industry characteristics, business models, and operational features.

Impact Magnitude: Assesses the potential impact of each topic on the Company's ability to create financial value. The scoring primarily uses the percentage impact on net profit as the core quantitative indicator.

Likelihood of Occurrence: Based on projections of industry trends and the macro environment, evaluates the probability of the above financial impacts materializing within a defined time horizon..

Impact Materiality Assessment

For "impact materiality", the Company invited various stakeholders through a survey questionnaire to score the actual or potential positive and negative impacts of the Company's operations and value chain activities on the external economy, society, and the environment:

Positive impact assessment: Assesses the scope, scale, and likelihood of the Company's positive impacts on the economy, society, and the environment in relation to relevant topics, based on JA's current level of topic management;

Negative impact assessment: Assesses the potential negative impacts on the economy, society, and the environment if the Company lacks effective management of relevant topics. The assessment dimensions cover the scope and scale of the impact, as well as the irreversibility of the impact after it has occurred.

Topic Review and Confirmation

The Company constructed a double materiality matrix by integrating quantitative assessments with multiple perspectives, including macroeconomic policies, capital markets, peer practices, and expert opinions. The assessment results were reviewed by the management level and approved by the Board of Directors, establishing the annual framework of material topics. This serves as the core basis for defining the disclosure focus of this report and guiding future management enhancements.



Step Four: Materiality Assessment Results

In 2025, JA identified 5 topics with high double materiality.

Environment

E

1.Addressing Climate Change

2.Energy Management

3.Emissions and Waste Management

4.Environmental Management System

5.Circular Economy

6.Water Resource Use and Management

7.Biodiversity and Ecosystem Protection

Society

S

8.Product Quality and Safety

9.Sustainable Supply Chain Management

10.R&D Innovation and Intellectual Property Protection

11.Human Capital Development

12.Occupational Health and Safety

13.Customer Rights and Interests Protection

14.Information Security and Privacy Protection

15.Community Impact and Development

Governance

G

16.Compliance and Risk Management

17.Anti-corruption and Business Ethics

18.Corporate Governance



For the key topics identified through the double materiality assessment, we have outlined their main impact scope, impact period, risks and opportunities, and corresponding disclosure chapters for management and actions, summarizing them in the table below:

Positive impacts: + Negative impacts: — Risks: × Opportunities: ✓

Topic	Impact Scope	Impact Period	Description of Impacts, Risks and Opportunities	Corresponding SDGs	Corresponding Chapter
Addressing Climate Change	Upstream, Own operations, Downstream	Medium-term, Long-term	+ : Effectively reduce greenhouse gas emissions through low-carbon management across the supply chain and operations, and actively support the global energy transition and industrial decarbonization through clean energy technologies and products. — : A lack of effective control over high-energy-consumption and high-carbon-emission processes in production and operations may lead to increased greenhouse gas emissions, thereby exacerbating climate and environmental burdens. × : Extreme weather may lead to asset damage, operational disruptions and increased costs. Meanwhile, increasingly stringent climate policies and disclosure requirements may raise compliance costs and put pressure on the Company to accelerate its transition. ✓ : Proactive management of climate risks can enhance operational resilience and business continuity. Developing green and low-carbon products and solutions can help reduce future operating costs and capture market opportunities in the low-carbon economy.		Environment Chapter Addressing Climate Change
Product Quality and Safety	Own operations, Downstream	Short-term, Medium-term, Long-term	+ : Intelligent quality control throughout the entire chain, supported by certifications from authoritative international bodies, ensures the power generation performance and electrical safety of photovoltaic products in complex environments. — : Product quality defects will directly lead to resource waste and increased operation and maintenance costs for customers, thereby reducing customer satisfaction and damaging the Company's brand image and market competitiveness. × : Increasingly strict international safety standards raise the difficulty and cost of compliance and market access; potential quality issues could lead to litigation compensation, regulatory fines, and severe reputational crises. ✓ : High standards of quality management help strengthen brand competitiveness and increase market share; an excellent product experience will translate into long-term cooperation opportunities and customer loyalty.		Products and Services Chapter Product Quality and Safety
Sustainable Supply Chain Management	Upstream, Own operations, Downstream	Short-term, Medium-term, Long-term	+ : We deeply integrate ESG standards into the full lifecycle management of suppliers and establish a fair and green procurement system; drive partners to jointly fulfill their responsibilities through empowerment training, promoting the sustainable transformation of the entire industry chain. — : A lack of supply chain control could lead to environmental violations, labor rights infringements, or a lack of business ethics upstream, which could in turn trigger product quality crises and have a negative impact on the environment and society. × : Potential ESG risks from suppliers (such as labor disputes or corruption) could cause supply disruptions, threatening business continuity; fluctuations in raw material prices and increasing compliance and regulatory costs will add to the financial burden. ✓ : High standards of ESG management can screen and attract high-quality partners, building a highly resilient supply chain advantage; a stable supply chain ecosystem helps to smooth out fluctuations and supports the Company's steady future business growth.	 	Products and Services Chapter Sustainable Supply Chain Management

Topic	Impact Scope	Impact Period	Description of Impacts, Risks and Opportunities	Corresponding SDGs	Corresponding Chapter
R&D Innovation and Intellectual Property Protection	Own operations, Downstream	Medium-term, Long-term	+: We rely on a comprehensive R&D and innovation system to continuously deliver efficient, low-carbon technological achievements; lead cost reduction and efficiency improvements in the photovoltaic (PV) industry through technological breakthroughs, providing a core driving force for the global energy transition. —: If R&D deviates from the right direction or innovation investment is insufficient, it will lead to lagging technological iteration and an inefficient use of resources; an inefficient supply of technology will also hinder the industry's development process. ×: If high-intensity R&D investment is not promptly converted into commercial results, it will lead to capital lock-up and financial pressure; at the same time, the Company faces legal risks of its intellectual property being infringed or infringing upon that of others, which may lead to compensatory damages. √: Continuous innovation and breakthroughs help to establish a leading position in technology and gain a greater voice in the industry; excellent R&D capabilities will attract high-quality strategic investors, helping the Company seize opportunities in the emerging green and low-carbon sectors.	 	Products and Services Chapter Product R&D and Innovation
Compliance and Risk Management	Own operations, Downstream	Short-term, Medium-term, Long-term	+: We establish a global compliance governance framework and regularly conduct special reviews on topics such as anti-commercial bribery and export control to ensure that business operations are legal and compliant. —: Failure to track changes in overseas regulations in a timely manner may lead to non-compliance, causing project suspensions or regulatory penalties, which would also disrupt the industry ecosystem and hinder the internationalisation process. ×: An imperfect risk response mechanism could lead to a surge in compliance costs, legal litigation, and substantial fines. In serious cases, it will directly threaten business continuity and weaken the Company's ability to expand in the global market. √: Proactive compliance management can effectively reduce market access barriers and hidden operating costs. Sophisticated policy insights will be transformed into a competitive market advantage, safeguarding the Company's expansion into new markets.		Governance Chapter Compliance and Risk Management

Chapter 1

Products and Services Chapter

JA, driven by technological innovation as its core, has built a solid foundation for product quality and safety. The Company continuously improves its customer rights protection system and sustainable supply management, deeply empowering industry development. It has formed a full-chain value creation model from R&D to service and from product to ecosystem, consistently promoting the green and sustainable upgrading of the global photovoltaic industry with responsibility and innovation.

Material Topics Covered in This Chapter ▼

R&D Innovation and Intellectual Property Protection	1
Product Quality and Safety	2
Customer Rights Protection	3
Sustainable Supply Chain Management	4

SDGs Addressed in This Chapter ▼



Product R&D and Innovation



Governance

JA has established a vertically integrated and dynamically optimized R&D system covering the entire industry chain, and has strengthened R&D management and risk control through institutional development. In 2025, the Company introduced the *Administrative Measures for R&D Project Risk Management* to achieve risk identification, assessment, classification, and response throughout the entire R&D process. Concurrently, it revised the *Administrative Measures for R&D Center Project Management* to improve project priority management and phase-gate review mechanisms, and established a "fast-track development" channel to enhance R&D efficiency and resource allocation, ensuring that R&D activities are standardized, efficient, and aligned with strategic directions.

The Company's R&D Center serves as its core engine, implementing a matrix-style collaborative management model. It oversees multiple specialized departments that work together, forming a comprehensive innovation loop covering frontier exploration, technological breakthroughs, product development, commercialization of results, and intellectual property protection. Utilizing the Integrated Product Development (IPD) process and the Product Lifecycle Management (PLM) system, the Company achieves digital control over the entire R&D process. This creates a closed-loop management system from strategy formulation and project initiation to process control and results commercialization, continuously enhancing technological innovation capabilities and market responsiveness. This provides core support for consolidating the Company's leading global R&D and product technology advantages and achieving high-quality development. In March 2025, JA was successfully recognized as a "National Enterprise Technology Center", which will further enhance the Company's technological innovation capabilities and solidify its leading position in the industry.

Case Study: IPD System Implementation Enhances R&D Decision-Making and Resource Allocation Efficiency

In 2025, JA fully promoted the implementation of the IPD system, establishing a three-tiered governance structure comprising the Integrated Portfolio Management Team (IPMT), Resource Management Team (RMT), and Product Development Team (PDT). The Company updated its product and technology planning process to achieve standardized management across the entire R&D workflow. Over the year, the system covered 6 departments and 53 projects, with 94 review nodes completed and 288 technical documents formulated. This has effectively improved the Company's resource allocation and decision-making efficiency, reduced risks of redundant development and resource misalignment, and provided long-term governance support for technology investment decisions and the commercial success of products.

Strategy

JA implements an R&D strategy of "one generation for production, one generation under R&D, and one generation for reservation". Through forward-looking layouts in the fields of silicon wafers, cells, modules, and energy storage, the Company drives product upgrades through technological iteration. The Company is committed to reducing the resource consumption per unit of electricity while increasing conversion efficiency and lowering the levelized cost of electricity (LCOE). Furthermore, we have elevated "energy security" to a strategic level. By developing technologies adapted to extreme climates, we significantly enhance the operational resilience of global PV power stations, aiming to build safe, efficient, and sustainable global photovoltaic solutions.

High-efficiency Driven

The Company views technological innovation as the core driver of high-quality growth, continuously setting new world records for conversion efficiency, such as TOPCon module efficiency reaching 25.5%, and making forward-looking arrangements for next-generation high-efficiency technologies like BC and perovskite stacked cells. Every percentage point increase in efficiency essentially means more intensive use of land resources and a significant reduction in the cost per unit of electricity generation. This achieves the production of a larger volume of clean electricity with fewer natural resources, allowing green growth to benefit the entire world.



Reliable Assurance

Faced with the challenge of frequent extreme weather events, the Company has placed "enhancing the resilience of the energy system" at a high strategic priority. We have custom-developed a matrix of highly reliable products for extreme environments such as deserts, Gobi, and wasteland regions, as well as offshore and typhoon-prone areas, including the "DeepBlue Desert" self-cleaning and typhoon-resistant modules and the "DeepBlue Ocean" offshore PV Modules. Through innovations in materials and structure, we ensure that modules can provide a stable energy supply even under harsh working conditions, safeguarding energy security for coastal load centers and remote areas, and enabling us to navigate steadily through the challenges of climate change.



Low-carbon Foundation

The Company adheres to a lifecycle "eco-design" philosophy, committed to making every module a low-carbon and environmentally friendly work of art. By promoting silver-free technologies (e.g., a 50% reduction in silver paste consumption for TBC cells), thinning films, and using green auxiliary materials such as lead-free ribbon and composite frames, we significantly reduce the embodied carbon emissions of our products. By building a complete low-carbon competitiveness system from "precise accounting" to "international certifications (LCA/EPD)", we continuously shorten the energy payback period, ensuring that our photovoltaic products meet the stringent requirements of a zero-carbon future throughout their entire lifecycle, from manufacturing to application.

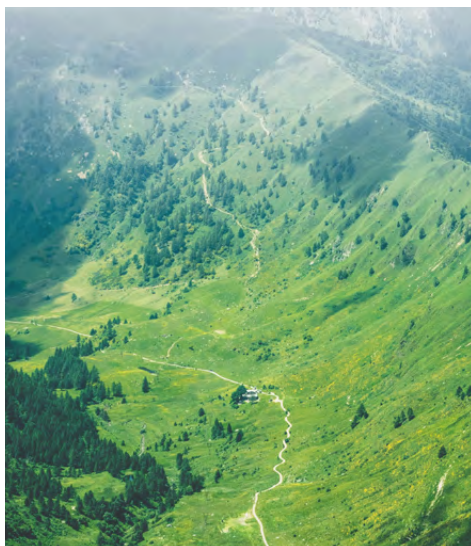


Impacts, Risks and Opportunities Management

JA conducts systematic assessments across dimensions such as technological iteration, R&D investment, intellectual property rights, achievement transformation, and green and low-carbon initiatives, incorporating related impacts, risks, and opportunities into the Company's comprehensive risk management system. The Company focuses on identifying potential risks such as the selection of technological routes like TOPCon and BC, R&D cycles and return on investment, and barriers related to key silicon materials and patents. At the same time, it seizes opportunities for market expansion and value enhancement brought by N-type high-efficiency cells, perovskite stacked cells, PV-storage integration, and low-carbon manufacturing. Through dynamic assessment and tiered management, the Company simultaneously develops response plans and resource allocation schemes to ensure the steady progress of R&D and innovation, providing technological support for sustainable development.

Technological Innovation Achievements

Adhering to the sustainable development philosophy of "building a green cycle", JA places technological innovation at its core. It integrates green and low-carbon awareness throughout the product lifecycle and has built a full value chain of sustainable practices centered around green technology, manufacturing, products, and solutions. This provides clean and efficient support for the global energy transition and promotes the sustainable upgrading of the photovoltaic industry.



Green Technology

The Company drives green development through technological innovation, selecting raw materials or components with a smaller environmental impact at the source. It continuously deepens R&D and innovation in green technologies across the entire chain, laying a solid foundation for the deployment of clean technologies. The layout of core technology sectors is as follows:

Crystal-pulling: Through the intelligent upgrading of monocrystalline furnaces, the application of new thermal fields and advanced materials, combined with proprietary crystal-pulling technology, we significantly reduce equipment power consumption and energy consumption per unit of output. This reduces the energy consumption and carbon footprint of the entire industry chain from the source, empowering the green transformation with technological innovation.

Cells: A comprehensive system covering "structural design + material systems + testing methods" has been established. Through the mass production of the physical edge passivation project, module power has been increased by 3–4W. Additionally, silver paste consumption has been reduced by 50% through technologies such as pattern optimization, stencil printing, and line thinning. TBC cells have completed pilot trials and been introduced into mass production, achieving a mass production efficiency of 27.80% and a module efficiency exceeding 24%. This forms an industrialized closed loop of high efficiency, high reliability, and low cost, thereby maximizing environmental benefits.

Silicon Wafers: We focus on expanding the performance dimensions of silicon materials and upgrading crystal-pulling and wafering processes. This involves optimizing photoelectric and structural characteristics to enhance conversion efficiency potential, while also advancing automated and intelligent R&D to achieve a high degree of automation in each process. This lays a core foundation for intelligent manufacturing, supporting high-efficiency, low-consumption production.

Modules: DeepBlue Desert Modules reduce operation and maintenance energy consumption, DeepBlue 5.0 improves efficiency and reduces material consumption, and HyperGen 5.0 lowers the usage of precious metals. By optimizing core processes, exploring low-carbon technologies, and incorporating solutions like low-temperature interconnection and thinner encapsulant films, we achieve high-efficiency, low-consumption designs.

Green Manufacturing

The Company integrates green principles throughout the entire manufacturing process, building a resource-efficient and environmentally friendly green manufacturing system.

Energy utilization efficiency is improved through the intelligent transformation of processes such as crystal-pulling and wafer slicing, upgrades to the energy management system, and optimization of peak-valley electricity usage.

The Company adopts technologies that use low-consumption raw and auxiliary materials, combined with waste heat recovery, water recycling, and the self-generation and self-consumption of distributed PV. These measures reduce production energy consumption and carbon footprint, creating a closed loop of "manufacturing clean energy with clean energy".

We are advancing the integration of digitalization and energy management, perfecting the compliant disposal of waste, and deploying green electricity and energy storage facilities. These efforts are all directed towards building zero-carbon factories and promoting the full implementation of green operations.

Green Products

The Company places great importance on the environmental and health impacts of its products, embedding ecological concepts from the design stage and reducing environmental loads through material innovation and process optimization. Adhering to green design principles and following international market trends, the Company has built a green product portfolio around silver-free technology, low-carbon modules, and energy storage systems. We actively use green auxiliary materials such as lead-free ribbon, fluorine-free back sheets, dealcoholized silicone, low-acid encapsulant film, and steel and composite frames to provide the market with products that meet green certification requirements, effectively reducing their carbon footprint.

Health



We systematically assess human toxicity (distinguishing between carcinogenic and non-carcinogenic effects) and ionizing radiation potential, strictly adhering to the REACH Regulation and controlling hazardous substances.

Resource Use



Key focus is placed on abiotic resource depletion (measuring fossil and mineral consumption via the ADP indicator), land use (assessed by GWP- LuLuc), and water depletion (via the WDP indicator). Resource consumption is reduced through measures such as improving material utilization rates and employing water recycling systems.

Ecological Impact



We comprehensively cover indicators such as acidification, eutrophication, global warming, ozone depletion, photochemical ozone formation, and ecotoxicity. By leveraging clean energy use, emissions control, and chemical management, we aim to achieve the dual goals of carbon reduction and pollutant reduction.

Furthermore, the Company integrates circular economy principles into product design, creating structures that are easy to dismantle and proactively publishing carbon footprint data (e.g., 18.31 gCO₂ eq/kWh in the Norwegian scenario). Relying on a systematic Life Cycle Assessment–Environmental Product Declaration (LCA–EPD) framework, we achieve multi-dimensional quantitative management and continuous improvement of environmental and social impacts. As of the reporting period, the Company has established a complete low-carbon competitiveness system encompassing "precise accounting, international certification, leading products, and joint standards development", achieving pioneering progress in carbon footprint management and low-carbon development.

Accounting and Certification

We have completed Life Cycle Assessment (LCA) audits for major manufacturing bases across the entire value chain, updated Environmental Product Declarations (EPD) for Norway and Italy, and obtained an EPD for the Netherlands. Concurrently, we were among the first to receive certification under the ISO 14067 and IEC 62994 international standards, establishing a standardized process for internal communication and external declaration of carbon footprint information that complies with International Electrotechnical Commission standards. This demonstrates that our carbon footprint management meets international professional standards.

Low-Carbon Product Performance

Our mainstream products consistently maintain a carbon footprint below 350 kg CO₂e/kWc in the French PPE2 assessment.

Standards and Ecosystem Development

Standards and Ecosystem Development: We have achieved breakthroughs both domestically and internationally. We co-edited and published the industry standard WM/T 19-2025, promoted the project initiation for the international standard IEC 63667-1, and are concurrently exploring the implementation and certification of a domestic product carbon footprint label.



Integrated Solutions

Operating under a core "module + solution" model, the Company focuses on the environmental needs of different application scenarios. We have assembled a zero-carbon business team and developed a zero-carbon technology system, concentrating on key scenarios such as desert, Gobi, and wasteland regions, residential use, and large-scale ground-mounted power stations to provide customized, integrated, green, and intelligent solutions for global customers. To address the core pain points of different scenarios, the Company has established a multi-dimensional, scenario-based solution framework. We have developed targeted products such as anti-glare modules, lead-free ribbon, and anti-dust-accumulation frames to solve issues of light pollution at airports, water quality protection for floating PV plants, and resource consumption in module operation and maintenance, thereby achieving scenario-specific cost reduction, carbon abatement, and ecological protection.

At the technical level



through innovation in materials, structure, processes, circuit design, and application scenarios, we have launched a series of modules including DeepBlue Desert Self-cleaning, Typhoon-resistant, Bifacial Single-sided Black, DeepBlue 5.0, and HyperGen 5.0, comprehensively addressing the pain points of scenarios such as desert, Gobi and wasteland regions, and typhoon-prone regions, ensuring the highly reliable operation of PV systems in harsh environments and safeguarding regional energy security. At the business implementation level, the Company actively participates in dual-carbon practices such as grid connection at a fair price PV projects, green buildings, and zero-carbon cities, and enhances clean energy accommodation efficiency by integrating energy storage and intelligent operation and maintenance technologies, helping to build a new type of power system. Currently, the Company's sales and service network spans 180 countries and regions worldwide, creating economic value for customers while promoting the green transformation of the industrial chain.



Green Technology – Case Study

Case Study: Development of Physical and Chemical Edge Passivation Technology to Reduce Losses and Increase Efficiency

JA has tackled the industry-wide challenge of high edge recombination losses and significant yield fluctuations after the dicing of multi-busbar modules. The Company has completed the engineering of physical edge passivation processes and introduced a low-cost chemical passivation solution to replace the traditional Atomic Layer Deposition (ALD) route. This technology effectively reduces efficiency losses caused by dicing and improves module consistency and stability. While enhancing power generation performance, it also reduces the scrap rate and saves equipment resources, resulting in equipment investment savings of approximately RMB 300 million and achieving a coordinated improvement in both environmental and economic benefits.

Case Study: Application of Finger Interconnection Technology to Support Resource Conservation

To address the technical bottlenecks of traditional ribbon interconnection methods for BC Modules, JA has developed finger interconnection technology and completed pilot verification. By systematically optimizing interconnection materials, structural design, and module encapsulation processes, the module efficiency has reached 23.47%. This technology reduces both resistive losses and the amount of metal interconnection material used, lowering the product's resource footprint from the source. The Company has now established its own patent portfolio for this technology, which has been incorporated into future mass production plans to promote cost reduction, efficiency enhancement, and the large-scale green application of BC Modules.

Green Products – Case Study

Case Study: Conducting a Life Cycle Assessment (LCA) of the Environmental Impact of N-type PV Modules

JA actively implements transparent green supply chain management, employing internationally standardized LCA and EPD methodologies. In accordance with specifications such as ISO 14025, EN 15804+A2, and NPCR 029, we conduct a full-chain environmental and social impact assessment of our N-type PV Modules. This assessment covers the entire life cycle, from raw material acquisition, manufacturing, transportation, and installation, to use, maintenance, end-of-life recycling, and benefits beyond the system boundary. By utilizing the SimaPro tool and the Ecoinvent database, combined with actual production data, we ensure the results are representative and transparent. Through quantifying our environmental baseline, the Company has provided solid data to support green product design and sustainable development decisions.

Green Manufacturing – Case Study

Case Study: Deploying Cutting-edge Technology to Drive Improvements in Energy Conversion Efficiency

JA focuses on next-generation high-efficiency photovoltaic technologies, systematically tackling single-junction perovskite and perovskite/silicon stacked cell technologies. Relying on a "simulation calculation + AI screening" model to optimize material and device structural parameters, the Company has established a pilot R&D line for stacked cells in Yangzhou to support process scaling. Throughout the year, certified reverse-scan efficiency for single-junction perovskite cells reached 27.78%, and stacked cell efficiency reached 34.3%, reaching internationally advanced levels. Related findings were published in top energy journals such as *Energy & Environmental Science* (EES) and *ACS Energy Letters* (AEL). This technology significantly enhances power generation capacity per unit area, helps reduce auxiliary material consumption and carbon emission intensity at the system level, and drives the PV industry towards higher efficiency and lower carbon.

Case Study: Digital Centralized Control System Empowering Lean Production and Enhancing Resource Utilization Efficiency

JA continues to advance its intelligent manufacturing upgrades. By developing an intelligent centralized control system for crystal-pulling and wafer slicing, the Company has enabled automatic matching of process parameters, online adjustments, and anomaly warnings, as well as automatic detection of wafer slicing abnormalities, thereby promoting the automation of key process steps. Since the project's implementation, the manual intervention rate across the entire process has dropped below 8%, the automatic detection rate for slicing abnormalities has exceeded 95%, the Grade-A wafer rate has increased by approximately 0.5%, and the per-unit output of crystal-pulling has risen by over 100 kg. This digital solution effectively reduces scrap and rework during production, driving a simultaneous decrease in material and energy consumption per unit of product and achieving coordinated improvement in both production efficiency and resource conservation.

Case Study: Building a Full-chain R&D Platform to Reduce Resource Input Through Digital Innovation

The Company has built a full-chain module development platform covering simulation analysis, module design, power generation performance prediction, and system validation. Through the integration of multi-scale models, this platform enables precise prediction and experimental verification, from cell performance to system power generation capacity. Leveraging this platform, the theoretical limit efficiency of TOPCon Modules has reached 25.5%, while the pilot-scale efficiency of BC and TOPCon Modules has surpassed 24% with a yield rate of over 99%. This significantly shortens the technology verification cycle and reduces material and energy consumption during the R&D phase, providing technical support for the large-scale application of high-efficiency photovoltaic products.

Integrated Solutions – Case Study

Case Study: JA's DeepBlue Desert Self-cleaning Modules Drive High-efficiency, Low-carbon Development for PV in Desert, Gobi and Wasteland Regions

Facing the multiple severe challenges of sand dust, high temperatures, and strong winds in desert, Gobi and wasteland regions, JA has introduced the DeepBlue Desert self-cleaning module, establishing a multi-dimensional protection system that ranges from surface self-cleaning to high structural reinforcement. Through the deep integration of materials and processes, we are comprehensively empowering PV projects in these areas to achieve long-term, stable, and low-carbon energy supply.

Self-cleaning Technology

Nano-coating and microstructural design reduce transmittance degradation by over 32%, significantly improving light energy utilization and power generation efficiency, thereby maximizing green energy output per unit area.

High-temperature Adaptability

The temperature coefficient has been optimized to $-0.28\%/^{\circ}\text{C}$, resulting in a 0.5–0.6% increase in power generation at high temperatures and a reduction in operating temperature of nearly 5°C . By suppressing thermal losses to improve energy conversion efficiency, this intrinsically lowers the carbon emission intensity per kWh.

Wear and Corrosion Resistance

A 7H high-hardness coating reduces power loss in sandy environments by 14%. This effectively extends the physical lifespan of modules under wind and sand abrasion and reduces the product's full-lifecycle resource footprint by lowering the frequency of equipment replacement.

High-load Wind Resistance

The high-strength steel-based frame increases strength by over 130% and load-bearing capacity by over 60%. This design aims to ensure the security of energy supply in extreme weather and enhance the resilience of PV assets against natural disasters.



"Heading for the Desert, Outperforming the Blue": JA's Extreme Challenge Series New Self-cleaning Product Launch for Desert, Gobi and Wasteland Regions

Integrated Solutions – Case Study

Case Study: JA's DeepBlue Ocean Supports the First Offshore PV Pilot, Launching an Energy Revolution to "Harness Light from the Sea"

Leveraging its profound R&D experience in floating PV, JA has launched the DeepBlue Ocean of N-type Modules, specifically designed for offshore operating conditions, and successfully supported Hebei Province's first 100% offshore PV pilot project. This product solution targets harsh marine environments with high salt spray, high UV radiation, and high loads from sea winds and waves, innovatively applying encapsulation technologies such as high water-resistance sealants and insulating corrosion-resistant polyurethane frames, achieving a power degradation of only 0.322% in combined tests of seawater pressure immersion and temperature, demonstrating extremely high reliability. Upon completion, the project is expected to generate an average of 767 million kWh of electricity annually, reducing carbon dioxide emissions by approximately 695,000 tonnes per year, not only providing a robust green energy guarantee for coastal power load centers but also effectively alleviating land development pressure by efficiently utilizing coastline resources, pioneering a new paradigm for energy security by "harnessing light from the sea".



Case Study: JA Modules Exclusively Power a "World Record" Stadium

In the low-carbon transformation of large urban infrastructure, JA exclusively powered the Signal Iduna Park stadium in Germany with over 11,000 DeepBlue 4.0 Pro all-black modules, helping the venue earn a world record certification from RID for the "world's most powerful stadium rooftop PV system". These all-black modules, which combine technological aesthetics with high-efficiency performance, complement the stadium's famous "Yellow Wall" stand, creating a unique visual landscape while generating over 4 GWh of electricity annually, enough to meet the lighting needs for 1,000 matches at the venue. The project reduces carbon dioxide emissions by approximately 1,800 tonnes per year, setting an outstanding benchmark for the green operation of professional sports stadiums globally and vividly illustrating how JA uses scenario-based innovation to deeply integrate clean energy into urban public life, driving the realization of its vision for a low-carbon societal transformation.



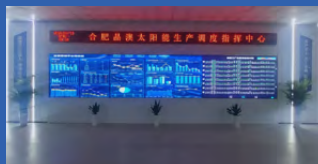
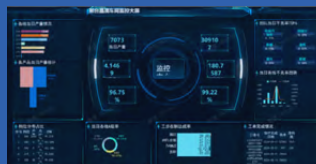
Case Study: "Solar + Storage + X" Integrated Solution Building a Diversified Energy Resilience System

Drawing on its PV technology and global service network, JA is deploying a "Solar + Storage + X" integrated solution (where X represents all industries) to deeply empower industrial, commercial, and diverse public service scenarios. By launching a 125 kW/261 kWh all-in-one commercial and industrial energy storage system and a 5 MWh containerized energy storage system, the Company has achieved a high degree of product integration, safety, and reliability, effectively addressing issues of uneven local energy supply and power system fluctuations. Utilizing the "JANebula" digital platform to provide full life-cycle management, we enhance delivery efficiency, helping end-users worldwide achieve energy independence and a low-carbon transformation.



Digital and Intelligent Manufacturing

Centered on digitalization, networking, and intelligence, the Company is conducting systematic construction fully benchmarked against the Capability Maturity Model for Manufacturing (CMMM), deeply integrating technologies such as AI vision, intelligent security, and a quality knowledge base by building an Industrial Internet of Things platform, constructing a data center, and promoting an integrated system of Manufacturing Execution System (MES) and Equipment Automation Program (EAP), with several of its bases being recognised as national and provincial-level intelligent factories, comprehensively enhancing production efficiency, product quality, and operational management levels to build a solid foundation for high-quality development.

Base	Dongtai Manufacturing Base	Fengxian Manufacturing Base	Hefei Manufacturing Base	Qijing Manufacturing Base	Xingtai Manufacturing Base	Yangzhou Manufacturing Base
Key Initiatives and Achievements	Deeply integrating technologies such as 5G, industrial robots, the industrial internet, and big data analytics, the base has built an "intelligent manufacturing + data-driven" operating system and established a multi-dimensional intelligent system, achieving significant results in digital transformation, successfully being selected for the MIIT's 2025 "National 5G Factory" list and the Jiangsu Provincial Department of Industry and Information Technology's 2025 "Jiangsu Provincial Advanced Intelligent Factory" list, and recognized as a "Jiangsu Provincial Star-rated Cloud Enterprise (Four-Star)" by the Jiangsu Provincial Department of Industry and Information Technology and an "AIPV 2024 Intelligent PV Manufacturing Demonstration Enterprise" by the Jiangsu Photovoltaic Industry Association, while also obtaining an "AA" level certification for its management system for the integration of industrialization and informatization, receiving high recognition from both the industry and government for its digital transformation.	Achieved full automation of the production process, including welding, assembly, inspection, and packaging, and deepened the integrated application of digitalization, networking, and intelligence, successfully being selected for the MIIT's "2025 Excellent-level Intelligent Factory" list, becoming one of the first benchmark enterprises in the photovoltaic (PV) industry and module sector to receive this honor, and forming a replicable and scalable system-level intelligent overall solution.	Deployed an industrial internet management platform to connect information and data throughout the entire process from raw material procurement to finished product warehousing, and integrated AI visual recognition technology to build a full-process quality tracking and traceability system, being recognized as a provincial-level "Advanced Intelligent Factory" in 2025, marking a significant milestone in its digital transformation.	Promoted the integrated optimization of MES+EAP, upgraded the Warehouse Management System (WMS), and constructed an IoT data collection platform and a data middle platform, while deepening the development of AI-powered intelligent security, the AI-driven upgrade of the quality knowledge base, and cybersecurity defense capabilities, comprehensively supporting intelligent manufacturing and lean management.	Established an Industrial Internet of Things platform, deploying over 300 data sources and more than 8,300 data collection points to build a standardized and highly reliable data collection system. Through a self-developed data center, it integrates multiple core management functions and connects the data chains of MES, ERP, and WMS systems, achieving real-time collection and analysis of production data and second-level response to quality anomalies, solidifying the foundation for digital development and supporting high-level applications of intelligent manufacturing.	With AI technology at its core, the base has built a comprehensive digital management system, integrating AI into the entire process of production, logistics, and quality inspection, and achieving efficient collaborative control through methods such as AI visual inspection and intelligent scheduling. In 2025, both companies at the base were recognized as "Jiangsu Provincial Advanced Intelligent Factory", demonstrating their formidable strength in digital and intelligent transformation.
		 AI Centralized Control Center at the Fengxian Manufacturing Base	 Production Scheduling and Command Center at the Hefei Manufacturing Base	 Workshop Monitoring Screen at the Xingtai Manufacturing Base	 Intelligent Operations Data Center at the Yangzhou Manufacturing Base	

Intellectual Property Protection

JA strictly adheres to national intellectual property laws and regulations such as the *Patent Law of the People's Republic of China*, the *Trademark Law of the People's Republic of China*, and the *Copyright Law of the People's Republic of China*, as well as industry standards and policy requirements like the *Outline of the Strategy for Building a Powerful Country in Intellectual Property (2021–2035)*, and in 2025, updated and issued the *Intellectual Property Management Measures* and the *Trade Secret Management Measures*, establishing an intellectual property management system that covers all categories and processes, clarifying rules for ownership, protection, utilization, incentives, and constraints, thereby achieving standardized, systematic, and value-oriented management of intellectual property.

The Company has established a multi-tiered management system supervised and decided by the Compliance and Internal Control Management Committee, with centralized management by the headquarters' Intellectual Property Department, collaboration across multiple departments, and professional review by the Patent Technology Committee, clarifying that intellectual achievements made by employees in the course of their duties belong to the Company, thereby achieving standardized control throughout the entire intellectual property process.



Patent

- Build a closed-loop management system covering seven core processes "filing, search, application, maintenance, transfer, licensing, and pledge" to maximize the value of intellectual property and fully mitigate risks.
- Conduct a grading assessment every two years (ordinary, important, and major levels), and review patent validity annually.
- Establish an infringement handling mechanism to protect rights in accordance with the law.

Trademark

- Establish a standardized operational mechanism for the entire trademark process, with dynamically tracks legal status and usage scenarios.
- Conduct clearance searches and registration at the early stage of new product development, and arrange joint and defensive trademarks.
- Monitor, collect evidence, and take legal action against infringements in a coordinated manner.

Other Intellectual Property

- Set up a copyright registration and domain name/trade name management system, including mechanisms for early conflict warning.
- Classify trade secrets into different security levels, and implement full-process protection through access control, encryption, and other measures.

In 2025, focusing on core technologies for high-power products, the Company conducted a comprehensive patent risk review covering seven key technologies including half-cell passivation, polyfinger, and triple-cut cells. It identified risk points, developed response plans, and produced a complete assessment report. Leveraging its core Topcon patents, the Company won a lawsuit against astronergy at the Unified Patent Court of Europe, successfully safeguarding its legitimate rights and interests and enhancing its corporate reputation. Meanwhile, based on the patent risk early warning project for *Co-passivated HBC Cells*, the Company applied for and received a subsidy of RMB 43,709.79 from the Beijing municipal government for its overseas intellectual property early warning initiative. In addition, the Company carried out two company-wide awareness sessions respectively for the *Trade Secrets Management Measures (202504)* and *Intellectual Property Management Measures (202504)*. It also held two training sessions for R&D staff on drafting patent technical disclosures, one exchange session on patent search experience, and one training session on copyright risk prevention for managers, effectively improving the compliance awareness and practical IP capabilities of all employees.

Industry-Academia-Research Collaboration

The Company upholds the principle of deep integration between industry, academia, and research, and has established long-term strategic partnerships with renowned domestic and international universities, scientific research institutions, and ecological partners. These collaborations focus on cutting-edge fields such as high-efficiency cells and advanced materials to jointly develop key technologies and promote the commercialization of research outcomes, thereby building a solid foundation for an open and collaborative innovation ecosystem. In 2025, the Company deepened its collaborative mechanisms by signing technical cooperation agreements with four universities to conduct joint research on high-efficiency cell materials, device structures, and advanced manufacturing processes. It also accelerated the engineering and commercialization of research results through joint projects and technical review mechanisms. Throughout the year, the Company conducted 11 technical exchanges with experts and screened 260 technological leads, of which 22 entered the experimental validation stage, effectively shortening the cycle from research to validation for cutting-edge technologies. By leveraging its stable external collaboration network, the Company introduces and evaluates advanced technologies, reducing the risk of internal R&D uncertainty and strengthening the foresight and robustness of its technological roadmap.

Case Study: JA Deepens Industry-academia-research Collaboration with the University of New South Wales

In 2025, JA deepened its industry-academia-research cooperation with the University of New South Wales (UNSW) in Australia. Leveraging the joint laboratory established by both sides, the two parties focused on R&D in photovoltaic cells and advanced materials. The ultra-high-efficiency cell project developed in collaboration with Professor Martin Green's team made encouraging progress. It is expected to achieve low-cost, high-performance mass production in the future and target a conversion efficiency of 29.4%. In October of the same year, Yang Aiqing, Executive President of JA, led a team to visit UNSW and held in-depth exchanges with the university and Professor Green's team on technology trends and industrialization pathways. The Company's self-developed BC platform "finger interconnect technology" was highly recognized, and both sides reached a consensus on mass production collaboration, further deepening their partnership and strengthening technological leadership.



JA Continues its Collaboration with the University of New South Wales, Australia

Case Study: A Tripartite Effort to Build a Highland for Technological Innovation in the Photoelectric Industry

In 2025, JA, East China Normal University, and Jiangsu Baoying Economic and Technological Development Zone jointly established the Optoelectronic Industry Technology Center. This center integrates the research advantages of the university, the industrial transformation capabilities of the enterprise, and the policy carrying advantages of the development zone, aiming to build a domestically leading and internationally influential highland for innovation, transformation, and talent cultivation in optoelectronic materials and devices, focusing on five core tasks: platform construction, talent introduction, technological research, achievement transformation, and scientific research activities.

Building R&D Capabilities

To continuously strengthen its core competitiveness in technological innovation, the Company continued to advance the introduction of high-level talent and the integration of expert resources in key areas of high-efficiency photovoltaic technology in 2025. By employing flexible talent acquisition methods, project collaborations, and expert consultations, the Company brought in top-tier technical expertise from the industry, holding six special events for high-level talent throughout the year. It also strengthened its R&D capabilities by leveraging the national enterprise technology center platform. By building a multi-level talent echelon and an expert support system, the Company continuously enhances its ability to tackle complex technical challenges, ensuring a stable talent pipeline for the construction of advanced technology platforms and long-term technological reserves.

At the same time, the Company systematically upgraded its R&D operational system with the goal of synergistic optimization of "people, machines, and the environment", providing unified platform support for all R&D activities. We improved experimental conditions and optimized equipment configurations to enhance the continuity and stability of R&D activities, ensuring simultaneous validation and rapid iteration across multiple technological routes. This effectively reduces resource idleness, increases equipment utilization, and promotes a more intensive and refined approach to R&D management.



Leading Industry Development

The Company consistently adheres to a development philosophy of collaborative construction and standards-first, actively working with partners across the industry chain to build a standardized, efficient, and sustainable industrial ecosystem. Through its leading technical practices and industry initiatives, the Company continues to set benchmarks for sustainable development, driving the global photovoltaic (PV) industry towards higher quality, greener and lower-carbon operations, and greater responsibility through standards leadership, responsibility-driven actions, and innovation empowerment.

Collaborative Development

The Company actively participates in the development of industry associations and standards organizations, deepening its collaborative partnerships with ecological partners across the industry chain. By establishing industry communication platforms, hosting or co-hosting professional conferences, and initiating or jointly issuing industry development initiatives, it promotes technological innovation and high-quality collaborative development within the industry.

In April 2025, the person in charge of the company's Module Research Department and his team were invited to attend the annual progress exchange meeting of the key national R&D program "Digital Eco-Design Technology and Application for PV Modules". They deeply participated in industry technical discussions and joint standard-setting, and promoted the coordinated digital and ecological upgrading of the PV industry through R&D innovation, contributing to the integrated development of the PV industry.



In June 2025, the 2025 Annual Technology Conference of JA was held in Yangzhou. More than 120 domestic and international experts, together with the company's technical backbones, discussed cutting-edge photovoltaic technologies and development trends, summarized the achievements, and reinforced the company's leading technological advantages.



In April 2025, the first 2025 working meeting of the PV Module Working Group and the Perovskite PV Cell Special Group under the Standardization Technical Committee of the China Photovoltaic Industry Association (CPIA) was held in Yangzhou, Jiangsu Province. The meeting was hosted by JA (Yangzhou) Solar Technology Co., Ltd.



In November 2025, JA, in collaboration with industry organizations, hosted the International Forum on Smart Energy Storage and Frequency Regulation, and released the *Shanghai Initiative on Smart Energy Storage, Frequency Regulation and International Power Security Development*. Together with its partners, the company deepened collaborative R&D and quality co-construction in photovoltaic and energy storage, launched multi-scenario PV-storage solutions, and its related products have obtained international authoritative certification. Through cross-sector collaboration, the company promotes standardized industry development and technological innovation.

Standards Leadership

JA is actively involved in the development of the global PV standards system, deeply participating in the formulation and implementation of international, national, industry, and group standards. It leads or jointly publishes white papers on specialized scenario solutions, using the twin drivers of standardization and technical solution output to support the standardized development, technological innovation and iteration, and sustainable upgrading of the industry.

Standard Type	Standard Name
International Standards	• Editor-in-chief for two international standards, including the ISO standard <i>Application of AI Technology for EL and Visual Inspection of BIPV Modules and Systems</i> (under project establishment), and second editor-in-chief for the IEC standard <i>Physical and Strength Performance Testing of Photovoltaic Glass</i>. • Participated in four IEC standards under development, including IEC 63667-1 <i>Product Category Rules for the Carbon Footprint of Photovoltaic Products—Part 1: Photovoltaic Modules</i>.
National Standards	• Editor-in-chief for two national standards, currently in the drafting stage: 20256274-Z-339 <i>Photovoltaic Devices Part 13: Electroluminescence of Photovoltaic Modules</i>, and the foreign language version of GB/T 39135-2020 <i>Test Method for Color Difference of Building Integrated Photovoltaic Glass Modules</i>. • Co-edited 23 national standards, of which 15 were published in 2025.
Industry Standards	• Editor-in-chief for two industry standards, both at the project establishment stage: <i>Test Method for Electrode Peel Strength of Crystalline Silicon Photovoltaic Cells</i> and <i>Test Method for Thermal Shock of Photovoltaic Modules</i>. • Co-edited three industry standards, of which one was published in 2025.
Group Standards	• Editor-in-chief for three group standards, all of which have been established as projects, including <i>Test Method for Static Bending Fatigue of Glass for Photovoltaic Modules</i>. The standard <i>Method for Color Sorting of Photovoltaic Cells Based on Automatic Optical Inspection (AOI)</i>, for which the Company was editor-in-chief, has passed review and is awaiting publication. • Two standards for which the Company was editor-in-chief, and which were initiated in 2024 were published during the year: T/CSTM 01556-2025 <i>Grading Method for Recycling of Crystalline Silicon Photovoltaic Modules</i> and T/CSTM 01544-2025 <i>Polyurethane Sealant for Terrestrial Crystalline Silicon Photovoltaic Modules</i>. Four other standards initiated in 2024, including <i>Method for Color Sorting of Photovoltaic Cells Based on Automatic Optical Inspection (AOI)</i>, have passed review and are awaiting publication. • Participated in the compilation of 68 group standards throughout the year.

Case Study: Government-enterprise-research Collaboration on Standards for Desert, Gobi and Wasteland Regions, and Release of the World's First Solution White Paper

In November 2025, JA, in collaboration with TÜV Nord and other partners, released the world's first *White Paper on Solutions for Sandy and Barren Regions*. By integrating data and technical experience from extreme environments through government-industry-research collaboration, the company systematically sorted out the core challenges of the sandy and barren region scenario, such as high ultraviolet radiation and intense sand and dust, established a reliability testing system that exceeds conventional requirements, and filled the gap in standards for photovoltaic applications in extreme scenarios. This white paper provides an authoritative basis for the site selection, design, and equipment selection of photovoltaic power stations in sandy and barren regions, leads the standardized development of photovoltaic technology in extreme scenarios through standards, and facilitates the large-scale deployment of green energy in desertified areas.



Launch of the World's First *White Paper on Solutions for Sandy and Barren Regions*

Targets and Metrics

Targets

Increase in intellectual property: ≥ 240 patent applications, with invention patents accounting for $\geq 25\%$.



Facilitate the successful development of no fewer than 2 product projects.



Achievement in 2025

Key Performance

In 2025

the Company held

2,286 valid patents at year-end

including

1,249 valid invention patents

A total of

444 patents were granted during the year

of which

217 were invention patents

In 2025

the Company's self-owned power station capacity was approximately

2,854 MW

Product R&D and Innovation



TaiyangNews
"Top 10 Module Manufacturer" List

China Testing & Certification International Group
Co., Ltd. (CTC)
Mohe Extreme Cold PV Energy Efficiency Pioneer Award

Renewable Energy Testing Center (RETC), USA
"Overall Highest Achiever" Award

PV Evolution Labs (PVEL)
"Top Performer" Honour

OFweek Solar
OFweek Cup • Ultra-high Efficiency PV Module Award

TÜV Rheinland Group
"All Quality Matters" Solar Congress 2025, First Place in
the Desert Category ("DeepBlue Desert" Module)

China Testing & Certification
International Group Co., Ltd.(CTC)
Outstanding Innovation Research
Award

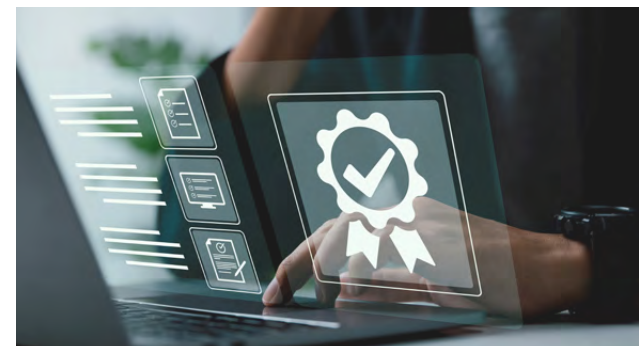
CSTM/FC03/TC22 Technical Committee on Standardisation for Solar Photovoltaic System Applications Under the
Field Committee on Building Materials Standardisation
Quantity Pioneer Award

Product Quality and Safety

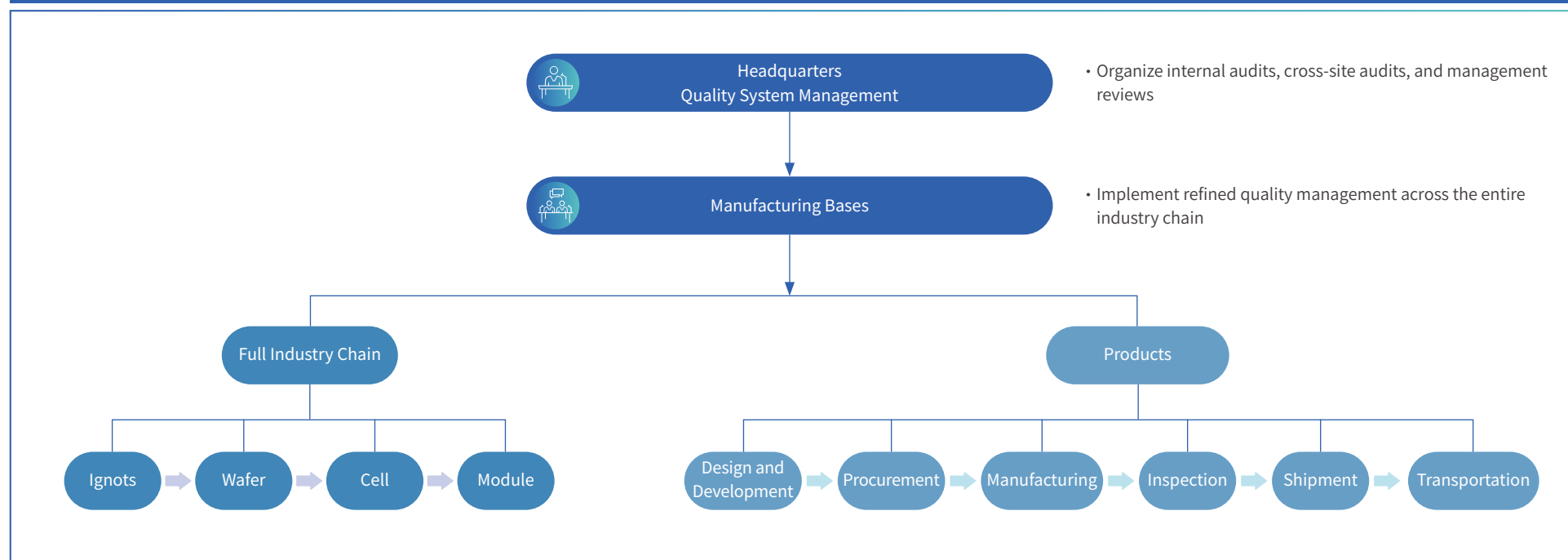
Governance

JA strictly adheres to national laws, regulations, and industry standards such as the *Product Quality Law of the People's Republic of China*, the *Work Safety Law of the People's Republic of China*, and the *Specifications for the Photovoltaic Manufacturing Industry (2024 Edition)*, and has formulated and implemented over 20 internal policies, including the *Product Lifecycle Stewardship Procedure*, the *New Product Design and Development Management Procedure*, the *Mechanism for Handling Major Quality Anomalies*, the *Continual Improvement Management Procedure*, and the *Identification and Traceability Management Procedure*, to establish a quality and safety management system that covers the entire chain of product planning, R&D, production, testing, delivery, and after-sales service, thereby building a solid foundation for quality throughout all processes with a comprehensive policy framework.

In accordance with the core requirements of the ISO 9001 quality management system, the Company has built a sound and efficient quality management framework, ensuring that every stage of the entire process meets stringent quality control standards; it also clearly defines quality responsibilities and authorities at all levels, providing solid management support for the establishment of a high-quality ecosystem.



JA's Comprehensive Quality Management System



Strategy

Guided by the principle of "focusing on customer needs, upholding the quality bottom line; refining the management system, and strengthening the quality cornerstone", JA has established a meticulous quality management system across the entire industrial chain, implementing strict controls and robust delivery throughout all processes to cultivate long-term value for customers and scenarios.

Focus on customer needs, uphold the quality bottom line; refine the management system, solidify the cornerstone of quality.
Building a full-chain quality control system to achieve systematic management of product quality.



Impacts, Risks and Opportunities Management

JA conducts systematic identification and assessment of quality and safety throughout the product lifecycle, focusing on dimensions such as design reliability, raw material quality, production processes, shipment inspection, scenario-specific safety, and compliance certification, incorporating related impacts, risks, and opportunities into the Company's comprehensive risk management system. The Company places particular emphasis on evaluating potential risks, including raw material volatility, adaptation to extreme environments, upgrades to international standards, fire safety, and explosion-proof performance, while also seizing opportunities for brand enhancement, market expansion, and increased customer value presented by highly reliable products, scenario-based customization, authoritative international certifications, and full-chain traceability. Through dynamic assessment, tiered control, and the implementation of end-to-end quality and safety control plans, product compliance and reliability are continually ensured, providing solid support for the steady growth of the Company's global business and the creation of sustainable value.

Product Quality and Safety Management Across the Lifecycle

Leveraging its vertically integrated industrial chain, JA has established a meticulous quality management system covering all processes, including R&D, procurement, production, and testing, to achieve strict control throughout the entire chain. The Company operates several module quality verification and accreditation laboratories, all of which are certified by the China National Accreditation Service (CNAS), capable of conducting comprehensive tests and verifications for module reliability and environmental adaptability, providing precise data support and technical assurance for product quality control. To ensure effective operation and continuous improvement of its quality management system, the Company conducts regular internal audits. The Company is certified under the ISO 9001 quality management system certification and IEC 62941 photovoltaic module manufacturing quality management system certification, and its main products have received authoritative product safety certifications from numerous countries, including EU CE, North America ETL (NA ETL), UK MCS, Germany TÜV, Australia CEC, India BIS, and South Korea KS, ensuring stable and reliable quality from the system to the product level.



R&D and Design

As the upstream control point for product quality and safety, the R&D and design stage leverages the Company's site-based safety management system and IPD process development model to establish a comprehensive, multi-dimensional control mechanism:

- Standardised management tools such as the *TR Review and Control Mechanism* have been established to conduct special safety assessments for new chemicals and equipment, and to strictly enforce the requirements for process changes under the "three simultaneities" principle, ensuring environmental and safety compliance.
- Multi-disciplinary, cross-functional project teams have been assembled to cover all stages from pre-research to pilot production through a full-cycle review process, focusing on systematic evaluations of raw and auxiliary material quality, finished product performance, and full-lifecycle compliance to strengthen quality control at the source during the R&D phase.



Supply Chain Quality Management

A multi-dimensional supply chain quality control system covering the full lifecycle has been established, using standardized processes and quantitative targets to build a strong first line of defense for quality:

- Multiple management procedures and policies have been formulated for the introduction and inspection of new raw materials, accompanied by quality audit standards that cover system certification, full-process inspection of delivery quality, and control of key processes, to strictly manage raw material access and delivery quality.
- A Statistical Process Control (SPC) and risk early-warning mechanism for key module material projects has been established, optimizing tiered supplier management, strengthening end-to-end control of incoming material inspections, and perfecting a closed-loop management mechanism for quality issues.
- Supplier quality capability training is conducted, and the digitalization of quality management is promoted to systematically enhance supply chain collaboration.

Production and Manufacturing



Through the implementation of standardized policies, empowerment via digital systems, and meticulous control at each manufacturing base, a full-chain quality assurance system has been established, spanning from real-time production line monitoring to closed-loop management of quality risks:

- Policies such as the *EAR¹ & MRB² Measures for Handling Abnormalities in the Production Process* and the *Measures for Handling Remainder Orders* are strictly enforced to achieve systematic quality supervision and closed-loop management of abnormalities during the production process.
- The Company continues to accelerate its digital transformation by establishing a quality analysis system for 24-hour real-time monitoring and automated early warnings on production lines, achieving precise control over product quality and manageable quality risks; it also innovatively applies laser QR code technology for full-chain traceability, enabling seamless data integration and precise tracking from silicon wafers and cells to modules.
- By using fully automated visual inspection equipment based on artificial intelligence technology, the Company directly monitors product defects, effectively enhancing inspection efficiency; simultaneously, at bases such as Yangzhou, it has achieved real-time linkage between all-process online inspection equipment and MES and EAP systems, collecting process parameters and triggering SPC control, building analytical models based on big data and AI to identify defect correlations, and enabling proactive prevention and continuous improvement of quality risks through predictive maintenance.



Product Testing

The Company implements stringent testing standards to ensure that modules pass the rigorous tests of international authoritative institutions, demonstrating outstanding performance in quality, reliability, and power generation:

- During the product design and development phase, testing standards more stringent than the industry average are adopted, ensuring module performance and safety through extreme environmental tests such as salt spray, ammonia, sand and dust, mechanical load, and UV testing.
- We conduct a comprehensive assessment of the environmental and societal impacts throughout the product lifecycle to ensure compliance with sustainable development requirements.

¹EAR: Engineering Abnormal Report, for general abnormal incidents in manufacturing processes.

²MRB: Material Review Board, for major abnormal incidents that have a significant impact on production.

After-sales



- Leveraging cross-base collaboration and full-chain traceability technology, the Company achieves closed-loop management from product delivery to after-sales feedback. Through rapid response, precise traceability, and continuous optimization, it ensures the long-term stable operation of customers' photovoltaic systems.
- The Company has established a comprehensive internal management system, including the *Product Recall Handling Process*, to prevent or address defective products before delivery to customers, strictly controlling the entry of non-conforming products into the market; it also clearly defines the product recall process to ensure a rapid response to quality anomalies and safety risks, taking timely and effective measures to reduce customer losses and protect their rights and interests.

Simultaneously, the Company has constructed a full-chain quality management verification mechanism comprising "base self-inspection—cross-base audit—process control—continuous improvement". Centered on data, this mechanism covers the entire process from incoming material inspection to manufacturing, at both the systemic and executive levels. The effectiveness of system implementation is verified through systematic self-inspections and cross-base audits. Subsequent measures such as tracking corrective actions, promoting best practices, and closed-loop management achieve dual improvements in quality and compliance, thereby building a solid safety guarantee for the implementation of the Group's quality system and base operations.

Product Quality and Safety Management Across the Lifecycle – Case Study

Case Study: Cross-departmental Collaboration to Specifically Enhance Module Resistance to UVID Degradation

Addressing the challenge of performance degradation under long-term ultraviolet irradiation (UVID) in photovoltaic modules, JA established a specialized team and implemented closed-loop management. By integrating cross-departmental resources from base quality, technology, and R&D, the Company has profoundly optimized encapsulation material formulations and cell surface passivation processes, achieving a significant breakthrough in UVID performance. The final product's UVID degradation level has reached an industry-leading standard, guaranteeing power output for modules in harsh UV environments and providing customers with higher-value, long-lasting green assets.

Case Study: Receiving the World's First Certificate for Uncertainty in Power Measurement, Leading Industry Standardization in Metrology

In June 2025, JA's Shanghai R&D Laboratory was awarded the world's first *Certificate for the Assessment of Uncertainty in Photovoltaic Cell Power Measurement* by TÜV Rheinland. The assessment was carried out in accordance with IEC standards, covering multiple dimensions such as equipment performance and process specifications, and confirmed that the laboratory's maximum power measurement uncertainty under STC is below 2% ($k=2$). This milestone places JA at the world's leading level in core photovoltaic cell testing. It not only accelerates technology R&D and improves production efficiency, but also promotes the improvement of industry measurement standards and supports the global green energy transition.

Case Study: Energy Storage Products Pass UL 9540A International Certification, Reinforcing the Safety of Energy Systems

In November 2025, JA's commercial and industrial energy storage products successfully passed the UL 9540A:2025 certification in Shanghai and received an international certification report issued by TÜV NORD. This certification focuses on assessing risks such as thermal runaway of energy storage products. After rigorous thermal runaway propagation assessment, JA's products have obtained international recognition for their energy storage technology and safety performance. This safety foundation not only strengthens the Company's market competitiveness but also provides crucial technical support for building a safe and resilient new power system during the energy transition.

Case Study: Ensuring Stable Product Quality Throughout the Lifecycle with Smart and Green Manufacturing

In September 2025, six of JA's core bases covering key links such as silicon ingots, cells and modules met the high standards for the industry's "quality leadership" transformation and were included in the list of enterprises complying with the *Standard Conditions for Photovoltaic Manufacturing Industry* released by the Ministry of Industry and Information Technology (MIIT). Leveraging the advantages of its vertically integrated industrial chain, the Company has established a strict quality control system covering the entire process to ensure consistent quality from raw materials to finished products. It also empowers production through intelligent upgrading and green manufacturing. By applying automated inspection, real-time data monitoring and other technologies, the Company reduces errors and achieves quality traceability, guaranteeing stable and sustainable product quality throughout the full lifecycle.

Hazardous Substance Control and Green Alternatives

The Company incorporates hazardous substance control into the core of its full-lifecycle quality management, establishing a systematic, closed-loop management system of "identification-analysis-assessment-control" to fortify its safety bottom line and green commitments. The Company strictly adheres to international regulatory standards such as RoHS and REACH, implementing refined supervision across the entire chain of raw materials, production processes, and final products. It also commits to the following:

Developing and dynamically optimizing a roadmap for the reduction and substitution of hazardous substances, with the commitment to completely phase out restricted hazardous materials such as lead and mercury by 2035.

Engaging deeply in global industrial ecosystem collaboration, working with industry associations and research institutions on joint research to promote alternative material solutions and the harmonization of global standards.

Continuously securing dedicated R&D resources to focus on the large-scale application of environmentally friendly materials like fluorine-free back sheets and lead-free ribbons, as well as innovations in green processes. Through systematic management, clear commitments, and open collaboration, we aim to lead the green manufacturing upgrade in the photovoltaic industry.

In its TOPCon high-efficiency modules, the Company employs 0BB technology and water-based fluxes to reduce alcohol emissions. It has also developed an innovative, xylene-free solvent method for testing the acid value of green adhesive films, concurrently reducing the use of toxic and hazardous chemicals in both production and testing.



Building a Quality Culture

Guided by the principle of "focusing on customer needs, upholding the quality baseline; refining management systems, strengthening the quality foundation", the Company has built a systematic framework for fostering a quality culture. We dynamically optimize our quality assessment mechanisms, conduct qualification evaluations for key positions, and leverage an iteratively updated library of quality topics and a stratified, classified training system. Across all bases, we provide training and qualification assessments for management, key personnel, and frontline employees, covering multiple dimensions such as quality awareness, system management, and tool application. This continuously strengthens the "customer-first" quality philosophy among all staff, enhances job-specific quality capabilities, and builds a solid foundation for product quality through robust talent cultivation, driving the Company's high-quality sustainable development.

Quality System Management Action Items

4 items have been closed; priority is being given to advancing 4 key items, including module reliability improvement and cell quality enhancement, while refining the quality management system

Signing of the Quality Commitment Letter

Implemented the quality management policy and established online and offline signing portals, with all 21,923 employees completing the signing for a 100% signing rate

Quality Competition

Each site participated in 35 improvement projects, with outstanding projects and sites selected from each module to promote quality through competition



Quality Management Improvement Proposals

Collected 2,057 effective improvement suggestions from all employees, selected 178 outstanding proposals for implementation, and facilitated quality improvements

Quality Knowledge Training

Experts were invited to conduct system training, while each site held training sessions on systems, standardisation, error-proofing, and quality tools to enhance the quality awareness and problem-solving capabilities of all staff

Quality Supervision and Improvement

A total of 1,379 non-conformities from all sites were compiled, forming a checklist of 817 system issues for supervision; each site conducted self-audits and rectified 208 self-identified non-conformities, driving continuous quality optimization

In 2025, training delivered at all bases covered quality awareness, standardized management, system audit skills and key quality position training. Job qualification assessments were carried out for frontline employees at each base to ensure the continuous improvement of their quality monitoring capabilities.



Standardized Management Training



Inspector Qualification Assessment



Quality Awareness Training

Targets and Metrics

Targets

Achievement in 2025

100% product pass rate



Zero major quality and safety incidents



Key Performance



During the reporting period, JA

no violations related to the health and safety of products and services

no incidents of product quality risks or product recalls

The number of recall incidents and recalled products were both **0**

The number of product categories for which environmental and societal impacts were assessed was **11**

accounting for **91.67** % of the total 12 product categories

100 % customer factory audit pass rate.

JA Solar Technology Co., Ltd.

"National Enterprise Technology Center" by the National Development and Reform Commission

JA Dongtai Manufacturing Base

"2025 5G Factory" by the Ministry of Industry and Information Technology

JA Fengxian Manufacturing Base

"2025 Excellence-Level Smart Factory" by the Ministry of Industry and Information Technology

JA Solar Technology Co., Ltd.

"Outstanding Innovation Research Award" from China Testing & Certification International Group Co., Ltd.

Qijing JA Solar Technology Co., Ltd. Laboratory

Silver Award for "Excellent Quality Control Laboratory" from China Testing & Certification Holding Group Co., Ltd.

Yiwu JA Solar Technology Co., Ltd.

Second Prize in the Team Category for Testing and Inspection Workers in the Photovoltaic Module Section of the 2025 Zhejiang Provincial Employee Vocational Skills Competition

Customer Rights Protection

Responsible Marketing

JA strictly adheres to regulations and standards, establishing procedures for product and service information and labelling that require the disclosure of information such as product component sourcing, composition of substances with environmental/ societal impacts, safe usage, and disposal impacts, ensuring that all related information is truthful, accurate, and complete. The Company has established an information release control mechanism centered on legality, compliance, and strict review. Through a dual-control approach of centralized management and business collaboration, it ensures that all external communications are accurate, focus on positive value, and adhere to confidentiality and disclosure norms. It systematically integrates responsible and sustainable principles into its marketing practices, conveying corporate responsibility through practical communication to build a foundation of compliance and trust for responsible marketing. In 2025, the Company made systematic and visible progress in the responsible and sustainable dimensions of its marketing activities, with specific measures including:

Enhancing the Omnichannel Compliance Review System

Building on the original review foundation, we have fully integrated emerging content formats into our management to ensure all marketing activities are lawful and compliant.

Promoting the Green Transformation of Marketing Materials

By reducing paper-based materials and promoting digital content such as e-posters, H5 pages, and short videos, we are lowering the environmental footprint of our marketing chain;

Innovatively Integrating Sustainable Development into Communications

We actively incorporate environmental attributes and social responsibility information into our brand communications to enhance transparency and deepen customer trust.

During the reporting period, the Company conducted a series of training sessions on topics including ESG management system, ESG intelligent inquiry system, customer ESG needs and common questions, and West Asia ESG specials. This empowered the marketing team to accurately address ESG concerns, connect with green projects, and expand regional markets while conducting sustainable marketing in compliance with regulations, effectively supporting the implementation of responsible marketing practices. During the reporting period, the Company had no violations related to advertising, marketing communications, or product and service information and labelling.

Customer Service Management System

JA leverages its global service network to create an integrated pre-sales, in-sales, and after-sales service system tailored to the needs of different regional markets, providing diverse support such as technical solution consulting, on-site power station implementation, and customer request handling.

Pre-sales

- We have assembled a professional sales team with extensive experience and strong technical skills, which conducts in-depth analysis of customer needs to provide comprehensive product information, customized solutions, and efficient service guarantees.

During -sales

- Centered on customer needs, we provide comprehensive in-sales support by dispatching engineers to sites for technical briefings and project inspections. We also offer factory audits and power station performance testing services, covering systems such as quality, occupational health and safety, and social responsibility. Through specialized safety briefings, we manage on-site risks to ensure safe and efficient construction.
- To further enhance service quality and response efficiency, the Company continued to strengthen its on-site service capabilities in 2025. Throughout the year, we conducted 210 on-site projects, identified and rectified 385 anomalies during inspections, and completed 248 power station tests. Of these tests, 148 were conducted by third parties (80 led by the Company and 68 assisted by the Company) and 100 were conducted internally, establishing a collaborative, multi-layered quality assurance system.

After-sales

- A professional customer service team has been established with a "24-hour response mechanism". Upon receiving customer feedback, we communicate and verify the issue and provide an emergency solution within the same day. For routine issues, a special investigation team completes the routine cause analysis and determines responsibility within 10 working days, solutions for major cases are submitted to the customer within 30 days, ensuring efficient and closed-loop resolution of requests.

In 2025, JA focused on a strategy of intelligence, localization, and standardization to comprehensively advance the structural upgrading and digital transformation of its after-sales service system. The Company has implemented initiatives across process digitalization, a global localized network, intelligent AI tools, data integration and analysis, preliminary research into recycling and insurance services, system construction, and industry insights. This has led to the establishment of a closed-loop management system for data collection, analysis, decision-making, and execution, and the creation of a new generation of customer support systems featuring full lifecycle traceability and refined end-to-end management. As a result, our service model has shifted from passive response to proactive value-add, significantly improving both the customer experience and operational efficiency.

Initiatives for the Structural Upgrading and Digital Transformation of the Customer Service System



System Integration and Data Connectivity

The Company launched the development of a new-generation after-sales system to connect the end-to-end system for R&D, production, supply, sales, and service, creating a unified customer view and achieving end-to-end closed-loop data management.



Upgrading Customer Self-Service

The service portal was rebuilt and a one-stop self-service module was added that supports ticket submission, progress tracking, and intelligent search to enhance service efficiency and transparency.



Intelligent Spare Parts Management

A global virtual warehouse system was established to achieve inventory visualisation, intelligent dispatch, and precise delivery, strengthening supply chain responsiveness and assurance capabilities.



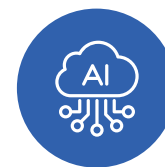
Standardisation of Project-Based Services

Value-added services such as power station inspection, performance diagnostics, and O&M assessment were incorporated into standardised project workflows, driving the transformation of services towards proactive prevention and value creation.



Global Service Network Expansion

Certified third-party service providers were introduced to build a collaborative network of 'headquarters experts and local rapid response', enhancing service timeliness and satisfaction in key regions.



AI-Enabled Service Upgrade

An AI intelligent Q&A system was launched, initially for internal technical support, with plans to subsequently open multilingual and multi-channel intelligent service touchpoints to global customers.



Case Study: JA Builds a Full Lifecycle Service System

JA has built a full lifecycle service system for energy storage, covering delivery, operations and maintenance (O&M), response, and training, to ensure the long-term stable and safe operation of its systems. During the delivery phase, we provide full project-cycle services, including arrival checks, installation guidance, system commissioning, acceptance testing, and training on operation, safety, and O&M, proactively resolving technical complexities. In the operational phase, we leverage 7x24 remote monitoring and data analysis to offer extended O&M warranties of five years or more and have established a tiered response mechanism (response within 2 hours for urgent risks, with on-site support within 48 hours if necessary). By utilizing our global regional service centers and spare parts centers, combined with digital tools, we provide collaborative remote and on-site services. We can also offer maintenance, upgrades, and other services through long-term service agreements, helping customers maximize their return on investment.



JA's Global Service Centers and Spare Parts Centers for its Energy Storage Business

At the same time, JA continuously enhances its team's professional capabilities and service levels through a systematic, multi-dimensional training system. In 2025, the Company conducted a total of 29 training sessions on various topics (including the promotion of the ESG management system and responding to customer ESG needs), comprising 21 internal business empowerment training sessions, 4 cross-departmental internal empowerment training sessions, and 4 cross-departmental external empowerment training sessions. These comprehensively strengthened the professional skills and problem-solving abilities of customer service staff. Concurrently, 71 specialized on-site training sessions were held for power station field services, effectively improving the practical skills of installation and O&M personnel. The Company also conducted specialized technical exchanges and training for key projects to further bolster its on-site service support capabilities.

Case Study

JA conducted specialized on-site maintenance training and communication sessions for the Sinohydro Bureau 7 Co., Ltd. and Zhongnan Engineering Corporation Limited consortium on Section II of the Zhalashan Photovoltaic Project. The sessions focused on systematic explanations and discussions of power station O&M technology, enhancing the on-site team's technical problem-solving capabilities and service standardization levels.

Case Study

JA held two technical training and communication sessions at the Guizhou Institute's Dafang Yangchangzhen Agricultural Photovoltaic Project. These sessions included practical discussions on daily power station O&M and common fault diagnostics, aiming to enhance the on-site team's service capabilities and provide technical assurance for the long-term stable operation of the power station.



Customer Satisfaction Management

JA has established a customer complaint handling mechanism centered on "tiered response, multi-level review, and evidence-based priority". This mechanism involves multi-departmental collaboration and strictly adheres to the *Headquarters Customer Complaint and Feedback Handling Process*, covering the entire process from complaint submission, information assessment, and responsibility determination to solution formulation, agreement signing, and case closure feedback. The Company has opened multiple feedback channels, including its official website, public WeChat account, headquarters telephone number, and customer service email. In 2025, the customer response rate was 100%, with an average response time of 1 hour and 49 minutes. We continuously optimize our services through annual satisfaction surveys. During the reporting period, a total of 2,725 customer complaints and feedback cases were handled, including 515 product-related complaints, with a case resolution rate of 100%.

JA conducts annual customer satisfaction surveys to gather multi-dimensional feedback on product performance and safety, delivery times, pricing, service, and new product requirements, continuously optimizing its service levels. In 2025, to standardize its customer service assurance system and accurately monitor satisfaction metrics, the Company formulated the *Customer Satisfaction Survey Control Procedure* and an accompanying questionnaire. The survey was administered through global random sampling, covering the top twenty customers by shipment volume in each region as well as the top five new customer shipments, involving 56 domestic and 177 international clients. The survey encompassed dimensions such as customer satisfaction, peer supplier comparisons, distributor support, and ESG compliance. Centered on customer satisfaction, it focused primarily on five key areas: product quality, business engagement, product delivery, customer service, and customer recognition.

Customer Satisfaction Management Targets	Targets Achievement in 2025	
Achieve an annual customer complaint satisfaction score of 92	94.3 points	✓
Achieve a customer complaint response rate of 98%	100%	✓
Achieve an on-site customer satisfaction score of 95	99.3 points	✓
Achieve an on-site service response rate of 97%	100%	✓

Meanwhile, thanks to its excellent service quality and professional technical expertise, the Company has earned high recognition from its customers. In 2025, our on-site services received over 20 letters of appreciation, commemorative banners, and honors.



Sustainable Supply Chain Management

Governance

JA adheres to international standards such as the International Labour Organization Core Conventions and the Ten Principles of the United Nations Global Compact, as well as requirements from the *UN Guiding Principles on Business and Human Rights* (UNGP), the *European Corporate Sustainability Due Diligence Directive* (CSDDD), and the *Organization for Economic Cooperation and Development* (OECD). The Company has formulated multiple policy documents and, in 2025, updated and revised over ten management policies, including the *Supplier Code of Conduct*, the *Conflict Minerals Management Policy*, the *Regulations on Supplier Classification Management*, and the *Regulations on Supplier Admission and Elimination Management*. This has established a full-cycle policy system covering the admission, classification, due diligence management, assessment, and elimination of suppliers for key production materials, providing a solid institutional foundation for supply chain risk prevention, sustainable due diligence, and standardized operations.

Supplier Code of Conduct

This code details the responsibilities and obligations of suppliers in areas such as labor and human rights, health and safety, environmental responsibility, corporate governance, and business ethics.

Environment



- Compliantly manage hazardous waste and specific substances (including RoHS and REACH SVHC), and adhere to relevant environmental regulations
- Set GHG reduction targets, track energy consumption, and encourage green electricity use and support for the SBTi initiative
- Formulate water resource management plans, reduce consumption and conserve water, and ensure compliant discharge of treated wastewater
- Practice a circular economy, optimize raw material usage, increase the proportion of recycled materials, and standardize waste disposal
- Protect biodiversity and avoid harm to protected areas

Labour and Human Rights



- Strictly prohibit the employment of child labor
- Prohibit forced labor, human trafficking, slavery, and similar practices
- Pay remuneration and benefits in full and on time, and pay overtime compensation in accordance with the law
- Comply with working hour regulations, and protect employees' rights to voluntary overtime and adequate rest
- Combat discrimination and harassment, provide an equal and inclusive working environment, and safeguard employees' freedom of expression
- Respect employees' freedom of association and right to collective bargaining
- Support community development and reduce the adverse impacts of business operations on local areas
- Comply with relevant guidelines for responsible minerals, and manage the sources of minerals such as tin, tantalum, tungsten, and gold from high-risk areas

Health and Safety



- Establish risk assessment mechanisms, provide protective equipment, and ensure occupational safety
- Manage labor risks, regularly maintain equipment, and investigate potential safety hazards
- Develop contingency plans and conduct training drills
- Manage hazardous materials in compliance with regulations, possess the relevant qualifications, and standardize their transport and use

Ethics and Compliance



- Strictly prohibit commercial bribery and corruption, and establish internal control and compliance procedures
- Proactively report and avoid conflicts of interest, and implement corresponding control measures
- Comply with relevant laws and regulations concerning anti-trust, fair competition, trade controls, and anti-money laundering
- Comply with data protection regulations, ensure the security of personal information, and protect intellectual property and trade secrets
- Meet the requirements for supply chain traceability and integrity

Responsible Sourcing Policy

This policy clarifies the requirements for suppliers during the procurement process and the content of responsible supply chain management, such as supply chain mapping, risk prioritization, on-site audits, corrective actions, and exit management.

Conflict Minerals Management Policy

This policy specifies a responsible management procedure for conflict minerals for the strict control of the sources of mineral procurement to ensure the use of responsible mineral resources in the supply chain.

The Company has established a full lifecycle management structure for its supply chain. The Board of Directors approves the sustainable development strategy for the supply chain and major decisions. The Strategy and Sustainability Committee oversees implementation and reports to the Board of Directors. The Global Supply Chain Center coordinates procurement and full-cycle supplier management, while various procurement execution departments collaborate to jointly build an efficient, compliant, and sustainable global supply chain management system.

Sustainable Supply Chain Management Structure



Strategy

JA upholds the principles of "mutual respect and collaboration", building a stable and reliable supply chain system based on Responsible Sourcing and working closely with suppliers to achieve the common goal of sustainable development for all parties. The Company strictly adheres to domestic and international regulations on supply chain due diligence, fully integrating international standards such as the OECD *Due Diligence Guidance for Responsible Business Conduct* and the UN *Guiding Principles on Business and Human Rights* into its entire procurement process. It proactively identifies and prevents potential risks and adverse impacts in the supply chain across ESG areas including the environment, labor, occupational health and safety, and governance, while continuously promoting the synergistic upgrading and value co-creation of the supply chain ecosystem. The Company actively collaborates with strategic clients and core upstream suppliers to jointly build a green, low-carbon supply chain ecosystem.

Impacts, Risks, and Opportunities Management

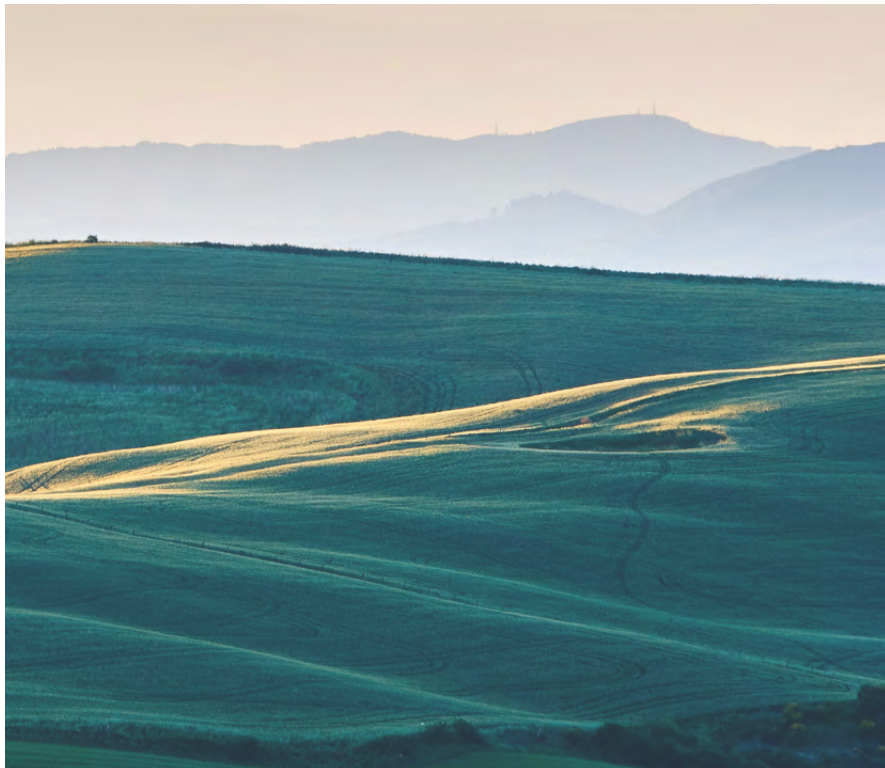
JA conducts systematic identification and assessment of its suppliers, fully integrating the related impacts, risks, and opportunities into the Company's risk management system. The Company focuses on analyzing potential Risks such as fluctuations in raw material prices, international trade policies, labor compliance, and key minerals, while also seizing the opportunities for improved compliance, cost optimization, and brand value growth brought about by green procurement, supply chain decarbonization, localized collaboration, and full-chain traceability. Through dynamic assessments, tiered controls, data-driven tools, and regular supplier empowerment, it continuously enhances its responsible supply chain management mechanism to ensure the stability and efficiency of its global supply chain, thereby supporting the Company's long-term sustainable development.

Supplier Access Management

JA strictly adheres to the "Know Your Counterparty" (KYC) principle, having established a multi-dimensional, high-standard supplier access system. During the qualification assessment phase, the Company conducts a comprehensive evaluation focusing on operational stability, compliance, and business capabilities, listing environmental compliance requirements such as ISO system certifications, product certifications, the *Restriction of Hazardous Substances* (RoHS) directive, and the *Registration, Evaluation, Authorization and Restriction of Chemicals* (REACH) regulation as core access criteria.

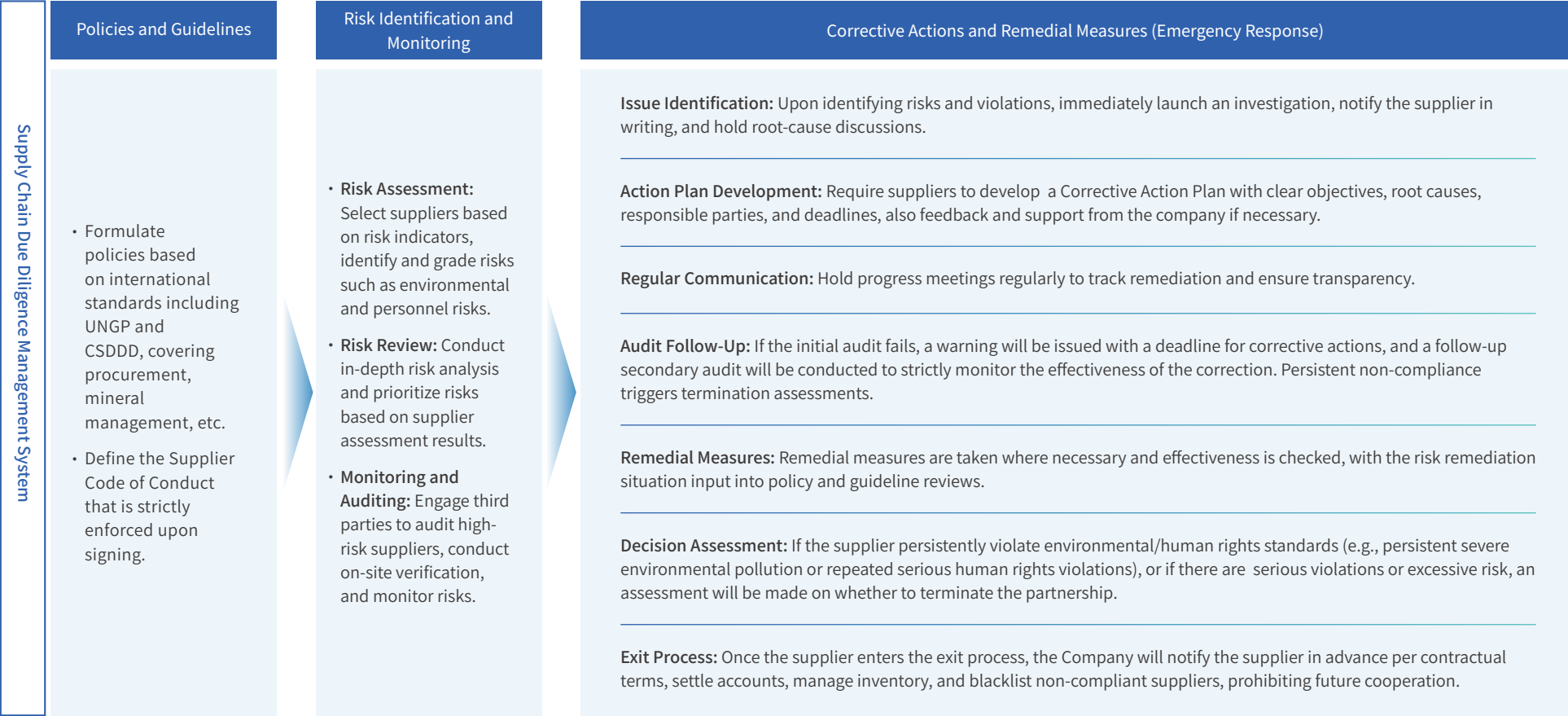
The Company conducts background checks on suppliers using public databases to review their environmental violation records, labor rights status, and financial condition, implementing a "one-vote veto" for suppliers with serious issues. Concurrently, it performs a comprehensive assessment of country-specific risks, industry risks, and commodity-specific risks related to suppliers to achieve multi-dimensional risk Management. Before being formally onboarded, new suppliers must sign the *Supplier Code of Conduct* to ensure the access process is complete and compliant. For categories related to conflict minerals, submission of a *Conflict Minerals Declaration* is mandatory at the access stage, ensuring that 100% of new suppliers complete rigorous sustainable development due diligence, thereby building a responsible supply chain from the source.

Additionally, the Company deeply integrates the concept of green development into its supply chain management, actively encouraging key suppliers of photovoltaic module production materials to obtain carbon footprint certification. It establishes regional procurement networks and prioritizes the use of local and environmentally friendly raw materials, achieving energy savings and emission reductions while enhancing procurement efficiency, thereby realizing a win-win synergy between commercial value and sustainable development.



Supplier Daily Management

In its daily supplier management, the Company conducts continuous dynamic risk assessment and monitoring. On one hand, we use operational risk management, combining supplier classification results with comprehensive performance, to select key suppliers for close attention, annually checking their operational risks, such as litigation and equity changes, using public sources like Tianyancha. On the other hand, we have built an ESG risk management system to identify priority suppliers based on multi-dimensional risk indicators across corporate, industry, product, and geographical dimensions. Corporate risk covers environmental, social, and governance Risks; industry and product risks focus on compliance issues in the minerals sector; and geographical risk refers to the *Country Risk List*. For these suppliers, the Company uses the *Supplier Sustainability Assessment Questionnaire* to identify their ESG risk levels. It implements a Corrective Action Plan (CAP) for non-compliant suppliers and terminates cooperation with those who refuse to rectify issues or whose rectifications are ineffective. Finally, the Company produces an annual supplier ESG analysis report, enabling regular, full-lifecycle risk management of its suppliers.



Sustainable Supply Chain Management

In 2025, the Company further enhanced the development of its Supplier Relationship Management (SRM) system, integrating refined supply chain classification with its sustainable development system. The number of key production material categories under the unified management of the Global Supply Chain Center increased from 42 to 76. The Company classified materials into critical, bottleneck, leverage and routine categories, and simultaneously established a tiered supplier matrix covering strategic, core and general suppliers, identifying a total of 225 significant suppliers¹. Such refined classification laid a solid foundation for the Company to implement differentiated resource allocation and ESG risk management and control, ensuring that management resources are precisely invested in high-risk or high-impact supply chain links. During the reporting period, the Company conducted operational and compliance risk assessments on 37 newly admitted controlled significant suppliers of photovoltaic module production materials. Relying on a dynamic monitoring mechanism, the Company delisted or suspended 93 suppliers from its Approved Vendor List (AVL), updated the AVL, and continuously optimized its supply chain structure.

During the year, JA also actively engaged with industry partners to launch the Global Solar and Storage Sustainability Alliance (GSSA). This initiative aims to significantly improve supply chain compliance levels while effectively reducing the overall management costs of the industrial chain by promoting a mechanism of standardized third-party ESG due diligence audits and shared reports. At the same time, the Company continues to benchmark against high international standards, actively promoting its sites to obtain Solar Stewardship Initiative (SSI) certification. By improving its internal management systems, it meets the SSI's requirements for corporate supply chains. Concurrently, it is advancing its ISO 20400 sustainable procurement certification efforts to ensure the Company's procurement practices align with its sustainable development vision.

Case Study: Conducting Online ESG Questionnaires for Significant Suppliers

In 2025, the Company continued to advance its assessment of suppliers' sustainable development performance. Building on the previous year's list of significant suppliers, a total of 93 key suppliers of photovoltaic module production materials were selected to participate in and complete JA's *Online Supplier Sustainability Assessment Questionnaire*. The questionnaire assesses ESG topics across five dimensions: environmental policy and management, social and labor standards, governance and compliance, supply chain management, and product stewardship systems. Based on internal policy requirements, suppliers were classified into high, medium, and low ESG risk levels according to their scores. The 15 medium-risk and 3 high-risk suppliers identified in the 2025 assessment were all small and medium-sized enterprises. The Company applies an on-site audit exemption policy for these enterprises, requiring only the submission of a CAP and providing remote support for its completion. Of these, 16 suppliers submitted their plans on schedule and cooperation with 2 was discontinued, while the remaining suppliers had no actual or potential significant adverse environmental or societal impact.

Case Study: Digitalisation of the Supply Chain Empowers Sustainable Management

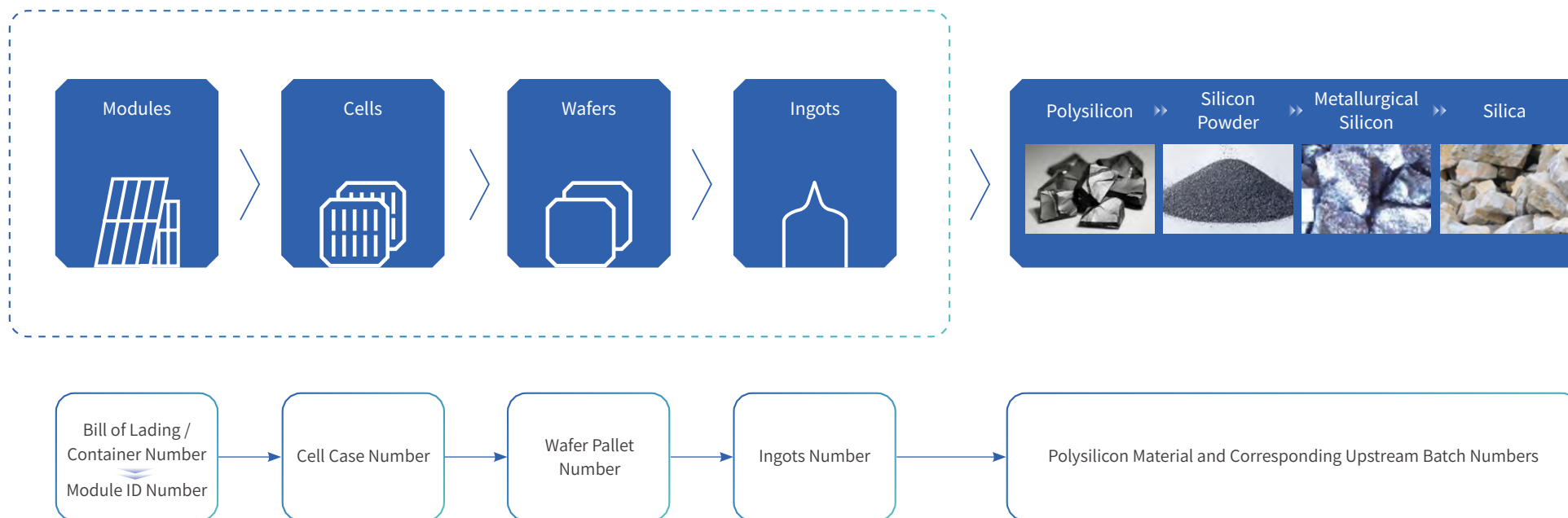
The Company is actively advancing the digitalization of its supply chain, leveraging its Supplier Relationship Management (SRM) system to achieve a strategic transformation from traditional procurement to proactive supply chain management. The system provides closed-loop management of the entire procurement lifecycle, from front-end sourcing and mid-stream execution to back-end settlement. Through a digital procurement center, it ensures the openness, transparency, and compliance traceability of the tendering and bidding process. Furthermore, it significantly enhances overall supply chain operational efficiency through automated coordination of orders, logistics, and financial settlements. To strengthen supply chain resilience and sustainability, the system deeply integrates a full-lifecycle supplier management framework, incorporating ESG compliance requirements into access reviews and dynamic performance assessments. It also combines external data to establish a digital risk control center, enabling real-time monitoring and precise early warnings for suppliers' operational risks. This ensures transparent procurement practices while collaborating with partners to build a green, compliant, and robust responsible supply chain.

¹Significant suppliers for 2025 are defined as strategic and core suppliers.

Raw Material Traceability Management

JA continues to deepen the application of digital technology and full-lifecycle management concepts. Based on the principle of traceability of raw material sources, monitoring of processes, and accountability, the Company uses the Group's integrated production and standardized management as a cornerstone to advance systematic traceability management and digital construction from both institutional and technological perspectives. In 2025, the Company released and implemented its *Compliance Traceability Management System* for the first time. The tracing system completed its test run, covering five module manufacturing bases, two cell manufacturing bases, and one ingot pulling and wafer slicing site. Simultaneously, the Group's WMS refined traceability transformation project was implemented, providing strong technical support for enhancing the granularity of silicon material traceability.

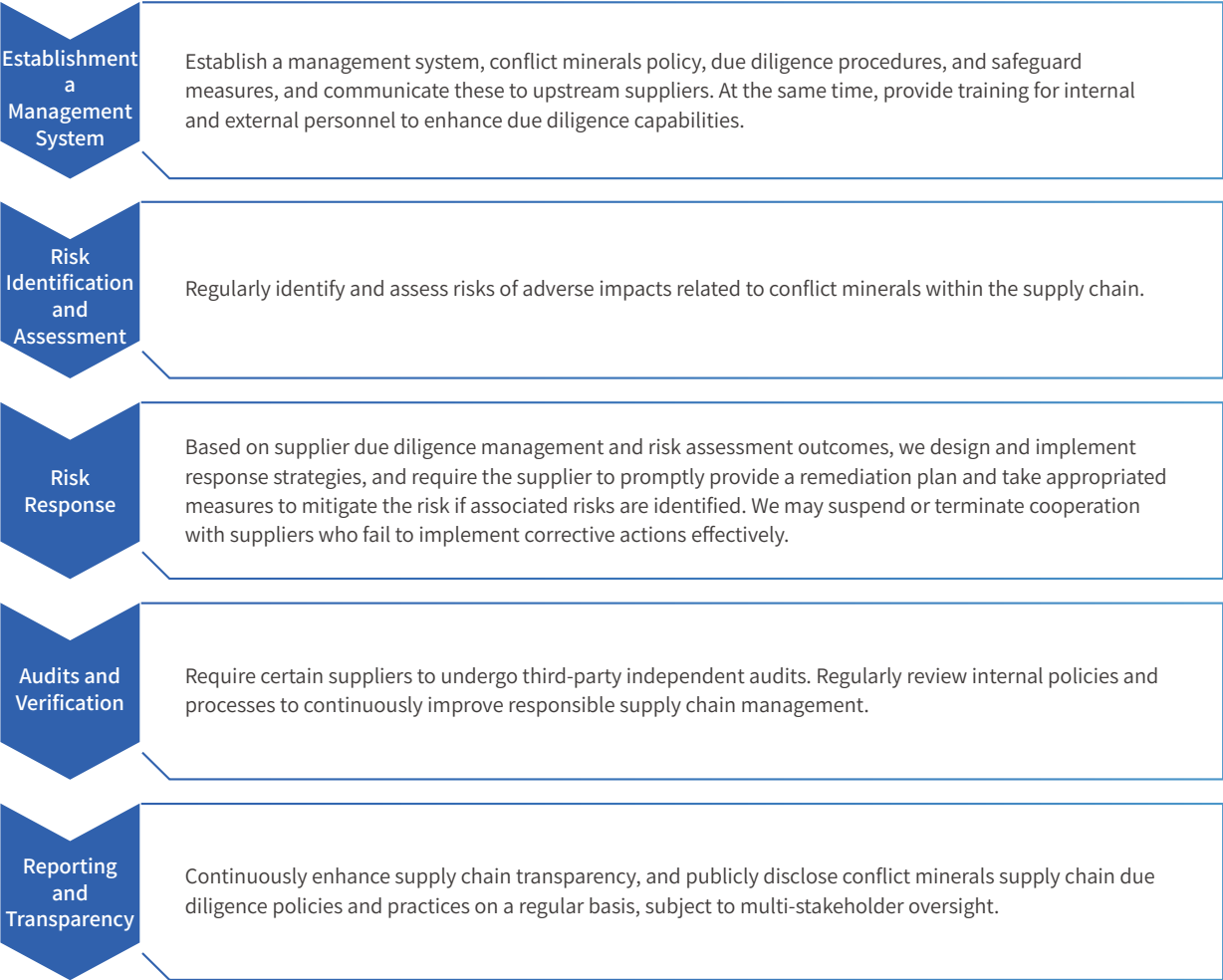
The Company is simultaneously upgrading its full-chain traceability capabilities by conducting specialized traceability empowerment sessions and third-party audits for key direct suppliers, incorporating their compliance performance into monthly assessments. In collaboration with suppliers, it extends traceability management upstream, piloting the extension of silicon material traceability empowerment to suppliers of silicon powder, metallurgical-grade silicon, and silica. This significantly enhances the transparency and managerial depth of the entire supply chain.



Traceability Chain Diagram from Module to Silica

Key Minerals Management

JA is committed to responsible mineral sourcing in its global supply chain to prevent procurement activities from contributing to conflict or violating human rights. For conflict minerals such as tantalum, tin, tungsten, and gold ("3TG"), the Company continuously revises and implements the *Conflict Minerals Management Policy* in accordance with the *OECD Due Diligence Guidance and the Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains*, to prohibit the use of controversial ores and ensure the traceability and control of minerals in the supply chain.



Conflict Minerals Due Diligence Management Approach

In 2025, the Company conducted its annual conflict minerals due diligence using the Conflict Minerals Reporting Template (CMRT) provided by the Responsible Minerals Initiative (RMI), requiring suppliers to provide information on their upstream smelters and refiners and their conflict minerals management practices, and to sign a *Conflict Minerals Declaration*.

The conflict mineral materials involved in JA are "tin", which is primarily used in junction boxes and solder strips; other conflict mineral materials are not involved. Through an investigation of the sources of "tin" used by a total of 15 suppliers of JA's junction boxes and solder strips, it has been found that all sources of tin are produced in mainland China, with no minerals sourced from the Democratic Republic of the Congo or neighboring countries, and no involvement in the use of conflict minerals.



Supplier Empowerment and Engagement

JA empowers its suppliers through regular communication, training, information sharing, and digital management, providing on-site or remote support for corrective/improvement actions to key partners as needed. The Company provides professional training for its internal supply chain management personnel on policies, ESG legislation, and contract terms. It also systematically conducts specialized ESG capacity-building for supply chain partners, covering key topics such as sustainable development concepts, CDP decarbonization requirements, the SA8000 standard, and labor rights. Through knowledge transfer and technological collaboration, the Company continuously enhances the overall ESG management level and compliance capability of the supply chain, working together to build a sustainable supply chain ecosystem of shared responsibility and collaborative development. During the reporting period, the Company actively encouraged its procurement staff across all regions to complete sustainable procurement training.

Case Study: Supporting Supply Chain Compliance Capability Building

In 2025, the Company provided targeted ESG training for its supply chain partners to enhance compliance management capabilities and its upstream supply chain. It also offered tailored support to small and medium-sized suppliers to help them meet ESG compliance requirements.

- The Company conducted online ESG training in two batches for its headquarters' suppliers, covering topics such as human rights and traceability for a total of 425 suppliers across categories including silicon materials, cells, auxiliary materials, and energy storage.
- The Company conducted specialised training for selected suppliers, focusing on CDP carbon disclosure reporting requirements and supply chain decarbonization practices, aiming to empower core partners to jointly advance the green and low-carbon transformation of the value chain.



On-site Supplier ESG Training

Furthermore, the Company has established an ESG and compliance incentive mechanism for suppliers. It has included an "ESG and compliance" additional bonus item in the *Supplier Comprehensive Performance Assessment*, incorporating sustainability performance factors such as carbon footprint, carbon accounting, participation in CDP supply chain programs, various authoritative certifications (e.g., RBA, SA8000, SSI), third-party ESG audits, setting Science-based Targets (SBTi), and labor management into the evaluation. For suppliers with an outstanding track record in these areas, the Company gives preferential treatment in resource allocation, providing valuable feedback to high-quality partners and jointly building a robust and responsible sustainable supply chain.

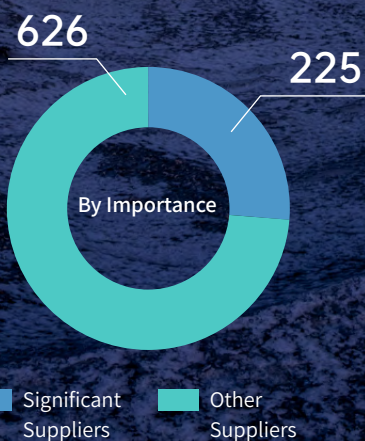
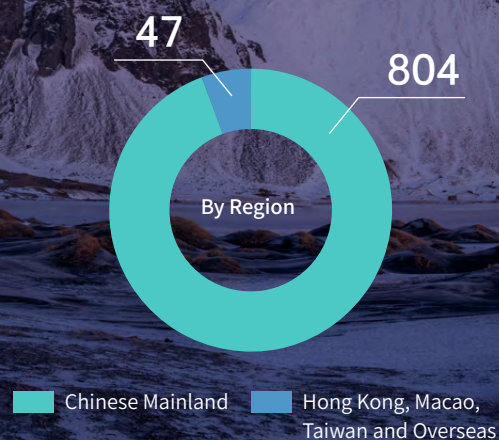
Supply Chain Grievances

The Company proactively collects concerns, issues, and suggestions from suppliers and supply chain workers through regular communication and consultation, feedback channels, and a standardized complaint mechanism to identify management weaknesses and drive continuous improvement. At the same time, the Company regularly discloses progress on policy implementation and performance to continuously enhance supply chain transparency. The Company has established confidential reporting channels, such as a localized "SpeakUp" platform operated by an independent third party, to ensure that suppliers and related stakeholders can safely report violations, with a strict prohibition on retaliation. It also systematically organizes, archives, and properly maintains supplier compliance documents, risk assessment records, audit reports, and corrective action evidence to ensure full process traceability.



Targets and Metrics

Number of JA's Production Material Suppliers in 2025
(Unit: Number of Companies)



Key performance indicators for sustainable supply chain management



100%

of domestic production material suppliers have signed the *Supplier Code of Conduct*.

100%

of suppliers involved with conflict minerals have signed the *Conflict Minerals Statement*.

100%

of new suppliers were screened using environmental and social criteria.

The Company performed due diligence on 93 qualified suppliers, representing

70% of the Group's total procurement value of BOM materials.

A total of

12 suppliers have obtained SA8000 certification.

A total of

6 suppliers have completed SMETA audits.

Other Performance



In 2025, the Company

System Certifications



100%

of the Company's main material suppliers are certified under the ISO 9001 quality management system.

92%

of main material suppliers are certified under the ISO 14001 system.

91%

of main material suppliers are certified under the ISO 45001 system.

Conflict Minerals



No incidents involving conflict minerals occurred.

Percentage of total revenue derived from products containing minerals from conflict-affected and high-risk areas:

0

Metal Raw Material Use



Total aluminium material usage:

329,985 tonnes.

Total copper material usage:

27,410 tonnes.

Total iron/steel usage:

2,476 tonnes.

Total nickel usage:

55 tonnes

Training



Conducted

3 supplier ESG training sessions,

with

425 suppliers participating.

Chapter 2

Environment Chapter

With a vision for a "zero-carbon future", JA actively addresses global challenges such as climate change, resource constraints, and ecological pressures. The Company systematically promotes key initiatives including greenhouse gas reduction, energy management, water conservation, emissions control, and waste recycling. Through institutional development, technological innovation, digital empowerment, and performance-linked mechanisms, The Company continuously enhances its environmental management effectiveness and reduces its ecological footprint.

Material Topics Covered in This Chapter ▼

Environmental Management System	1
Addressing Climate Change	2
Energy Management	3
Water Resource Use and Management	4
Emissions and Waste Management	5
Biodiversity and Ecological Conservation	6

SDGs Addressed in This Chapter ▼



Improving Environmental Management

Environmental Management System

JA strictly adheres to environmental protection laws and regulations in the locations where it operates, including the *Environmental Protection Law of the People's Republic of China*, the *Regulations on the Environmental Protection Management of Construction Projects*, the *Regulations on the Administration of Pollution Discharge Permits*, the *Integrated Wastewater Discharge Standard*, the *Law of the People's Republic of China on the Prevention and Control of Solid Waste Pollution*, and the *National Hazardous Waste Directory*. The Company upholds compliance as a baseline for its operations, continuously optimises its environmental management system, closely monitors the latest domestic and international environmental policy developments, and promptly revises internal management measures to ensure its EMS remains aligned with current legal, regulatory, and Compliance obligations.

Environmental Management System and Structure



System Development

The Company has established a series of management systems, including the *QEHS Management System Manual*, the *Guidelines for EHS Management*, the *Environmental Protection Management Procedures*, the *HSSE Plan*, the *Wastewater Management Procedure* and the *Waste Management Procedure*. These define the duties of relevant departments, environmental management requirements, recruitment and training, and stakeholder communication mechanisms. All systems are promptly published to the entire company via the OA system, and regular environmental training and awareness campaigns are conducted to ensure that both internal employees and external stakeholders comply with environmental laws and regulations.



Performance Linkage

JA's Board of Directors is the highest decision-making body for environmental management commitments, with the management level responsible for overseeing the implementation of environmental policies. The Company operates a mechanism linking environmental performance to remuneration, signing annual EHS target responsibility letters, incorporating key quantitative indicators into annual goals, and cascading them down to each manufacturing base and department. Progress is regularly monitored through management reviews, and assessment results are directly linked to the performance evaluations of relevant departments and their heads, driving continuous improvement and compliance through a target responsibility system.



Key Performance

In 2025, JA

Number of incidents subject to penalties for violations of environmental protection laws and regulations:

0

Environmental protection investment reached RMB

208.1297 million

1 manufacturing base was selected for the "Provincial Green Factory" list.

100% of manufacturing bases are certified to the ISO 14001 Environmental Management System.

A total of 8 manufacturing bases were awarded the "National Green Factory" title by the Ministry of Industry and Information Technology.

A total of 2 manufacturing bases were selected for the "Municipal Green Factory" list.

Case study: Yangzhou Manufacturing Base Builds a Dual-certified "Zero-carbon + Green" Factory

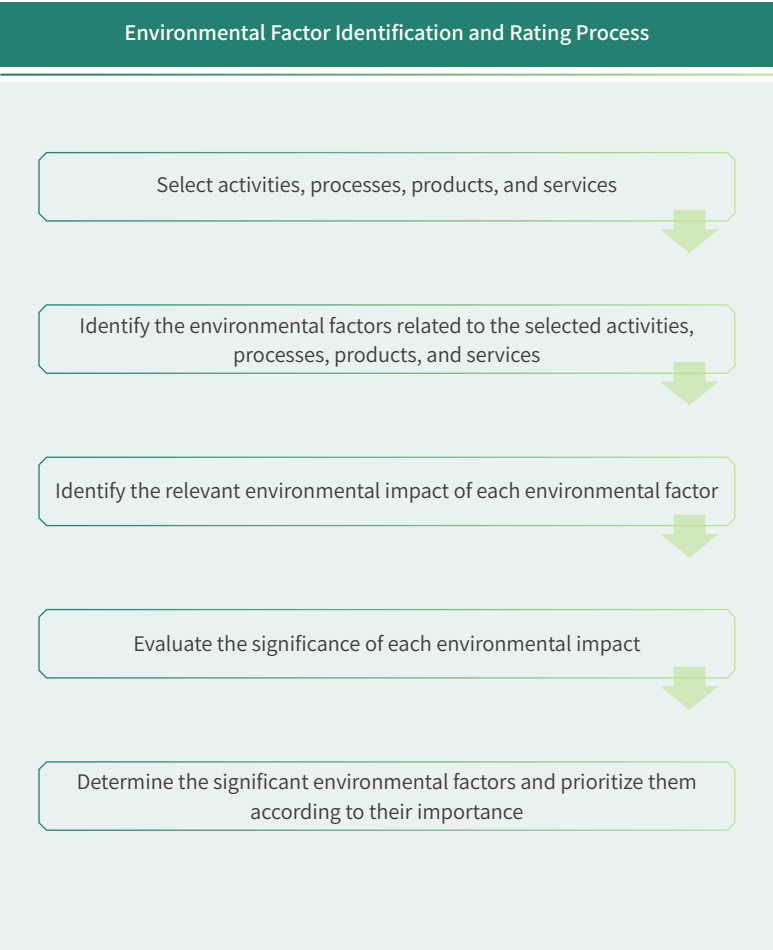
After receiving the four-star (Type I) Zero-carbon Factory certification in 2024, the Jingshan Campus of Yangzhou Manufacturing Base was also awarded the "National Green Factory" title in 2025, pioneering a dual-certified "Zero-carbon + Green" sustainable development system.

The Yangzhou Manufacturing Base has constructed a distributed PV system with an average annual power generation exceeding 22 million kWh, meeting a portion of its production electricity demand. Simultaneously, the base has innovatively applied production line waste heat recovery technology, converting process waste heat into heating for the plant, saving approximately 3,000 tonnes of standard coal annually. It also utilizes a smart energy management system (EMS) to achieve real-time monitoring and optimization of energy consumption and carbon emissions, resulting in a 15% year-on-year decrease in overall energy consumption intensity. Furthermore, the Yangzhou Manufacturing Base has implemented a high-standard water resource recycling project, installed water-saving devices and smart water meters, achieving a 30% reduction in water consumption per unit of product compared to the previous year.



Environmental Risk Management

JA continuously implements routine environmental risk control. Each manufacturing base regularly conducts comprehensive identification and evaluation of environmental factors in accordance with the *Environmental Factor Identification and Evaluation Control Procedures*. Every stage within the Company's boundaries, including production, transportation, discharge, and services, is individually identified to assess and determine significant environmental factors, which are then included in key management to continuously optimize control measures.



JA has established a systematic environmental risk prevention and control system through multi-dimensional mechanisms including routine inspections, environmental audits, and emergency management.

Routine Inspections



Emissions monitoring: Self-monitoring plans are formulated based on pollutant discharge permit requirements, and qualified third parties are regularly commissioned to conduct testing to ensure the stable and compliant discharge of pollutants such as wastewater, exhaust gas, and noise.

Specialized inspections: Regular specialized environmental inspections are conducted, covering on-site operations and the functioning of environmental protection facilities. Any issues identified are promptly assigned to the responsible departments, with follow-up to ensure corrective actions are completed, effectively managing compliance risks.

Emergency Management



Emergency plans: Each manufacturing base has formulated specialized emergency plans for sudden environmental incidents, systematically standardizing emergency response procedures, division of responsibilities, and methods for handling various types of sudden environmental events.

Emergency drills: Each manufacturing base routinely organizes multi-scenario emergency training and drills, continuously improving its emergency response and handling capabilities for sudden environmental incidents.

Environmental Audits



Internal audits: The Company regularly organizes internal audits of its environmental management system and compliance audits, covering relevant departments such as EHS, manufacturing quality, and human resources, with a focus on overseeing the implementation of corrective actions for non-conformities.

External audits: The Company proactively undergoes government regulatory inspections and invites third-party organizations to conduct external audits of its systems and compliance, continuously enhancing the standardization of its environmental stewardship.

Incident Handling



In strict accordance with the Company's *EHS Incident Management Procedures*, all environmental incidents are subject to immediate reporting, emergency response, in-depth investigation, and corrective actions with closed-loop management under the standardized process described above.

Building a Culture of Environmental Protection

JA promotes environmental awareness at all levels, from management to front-line employees, through various methods such as training, publicity, and themed activities, fostering a green working atmosphere of universal participation and shared responsibility.

Key Performance



In 2025, JA

Conducted a total of **444** environmental protection training sessions

Training participation reached **21,777** participants

Environmental Protection Training

Case study: Baotou Manufacturing Base Holds Environmental Impact Factor Training and a Special Campaign on Solid Waste Management

In 2025, the Baotou Manufacturing Base organized departments across the base to systematically identify and assess the environmental aspects associated with the Company's activities. It also conducted specialized training for safety officers and personnel at supervisor level and above, focusing on issues identified in previous years' identification processes in order to improve the compliance and effectiveness of the identification and assessment process. In addition, in April, the Baotou Manufacturing Base launched an awareness campaign themed around solid waste management and the circular economy. Through site-wide solid waste sorting training, creative reuse of discarded materials, and interactive waste-sorting games, the campaign promoted awareness of the requirements for waste reduction, sorting and resource recovery, thereby enhancing employees' environmental awareness.



Case study: Ordos Manufacturing Base Conducts Specialized Training on Environmental Laws and Regulations and on Improving Environmental Awareness among all Employees

In March 2025, the Ordos Manufacturing Base conducted a dedicated training programme under the theme of "Full Compliance, Proactive Prevention". Focusing on newly issued laws and policies and incorporating in-depth analysis of typical industry cases, the programme systematically strengthened management personnel's understanding of non-negotiable environmental compliance requirements and their principal responsibilities. Through scenario-based workshops, it also effectively enhanced employees' awareness of environmental risk identification and proactive prevention in their daily work. The training covered 21 participants by environmental affairs staff across different manufacturing processes, with a total of 42 training hours.



Environmental Protection Activities

Case study: "Hike and Clean the Mountain, Protect Nature" Activity at the Hefei Manufacturing Base

In April 2025, the EHS Management Department of JA's Hefei Manufacturing Base organized an environmental volunteer activity for 40 employees at Zipeng Mountain Forest Park under the theme of "Hike and Clean the Mountain". Participants collected litter along the trails, gathering a total of 40 kg of waste. The event combined outdoor hiking with environmental clean-up. While promoting a healthy, low-carbon lifestyle, it also enhanced employees' intuitive understanding of ecological protection, strengthened teamwork, and demonstrated employees' active participation in environmental protection.



"Hike and Clean the Mountain" Activity at the Hefei Manufacturing Base

Case study: Qujing Manufacturing Base Carries out "Earth Day and Me" Themed Practical Activities

In April 2025, the Qujing Manufacturing Base of JA organized a series of themed initiatives under the banner of "OUR POWER, OUR PLANET" as part of the Group's "Earth Day and Me" environmental culture campaign. All employees at the manufacturing base participated in an online training programme provided by the United Nations Global Compact (UNGC) on climate change and business sustainability, covering six major topics including biodiversity, water resource management and the circular economy, with all participants completing both the learning and feedback process. At the same time, employees and their family members actively recorded short advocacy videos as "Earth Day Ambassadors", making specific action commitments based on their job responsibilities in areas such as gender equality, occupational health and safety, and resource conservation. During the campaign, the manufacturing base also set up an "Earth Day and Me" themed interactive challenge area in the canteen, attracting many employees to take part in activities such as environmental knowledge quizzes, hazardous waste sorting simulations and green pledge sign-in activities. The campaign won the Group's "Outstanding Environmental Activity Organization Award".



"Earth Day and Me" Themed Challenge Activity

Case study: Yiwu Manufacturing Base's Earth Day Themed Promotional Campaign

In April 2025, taking the opportunity of Earth Day, the Yiwu Manufacturing Base organized a promotional themed campaign to raise awareness of global climate and environmental protection among all employees. The event invited department heads and employee representatives to participate in a special learning session on climate and environmental issues and organized the production of an environmental awareness video. Through knowledge sharing, interactive discussions and video production, core concepts such as climate change, carbon reduction and low-carbon living were systematically communicated.



Earth Day Activity at the Yiwu Manufacturing Base

Addressing Climate Change

Governance

To enhance its capacity to respond to climate change and promote a green, low-carbon transition, JA has established a three-level climate governance structure composed of governance, management, and implementation levels, with clearly defined responsibilities at each level to ensure the effective top-down communication and implementation of its climate strategy. The Company has assembled a climate governance team with professional capabilities, industry background, and practical experience, and conducts regular specialized training to continuously enhance its management and execution capabilities in areas such as climate change response, energy conservation, and emissions reduction. Additionally, JA successfully completed the Climate Ambition Accelerator initiative launched by the United Nations Global Compact (UNGC) through in-depth learning of greenhouse gas emissions inventory optimization, science-based carbon target setting, and carbon emissions management.

To improve management effectiveness, The Company has set a series of quantitative targets, including carbon reduction and energy efficiency, and has incorporated indicators such as greenhouse gas emission reduction, energy consumption, and supply chain participation into the annual performance assessments of management and employees in relevant departments, effectively driving the implementation of climate governance objectives.

Level	Governance Body	Description of Authority
Governance Level	Board of Directors	Establish the Company's climate governance framework and operational mechanisms.
	Strategy and Sustainability Committee	Responsible for the overall management and supervision of the Company's response to climate change, reviewing and approving the Company's climate and ESG strategy and targets, regularly tracking implementation progress, and receiving at least one dedicated work report each year to provide strategic guidance.
Management Level	Compliance and Internal Control Management Committee	Responsible for establishing climate-related systems, breaking down targets, coordinating resources, and promoting implementation, as well as regularly tracking, assessing, and reporting on climate action performance.
Implementation Level	ESG Department	Collaborate with relevant departments to form a working group responsible for the implementation of specific climate initiatives, including data collection, execution of emission reduction projects, daily monitoring and reporting, ensuring the effective rollout of all climate action measures.

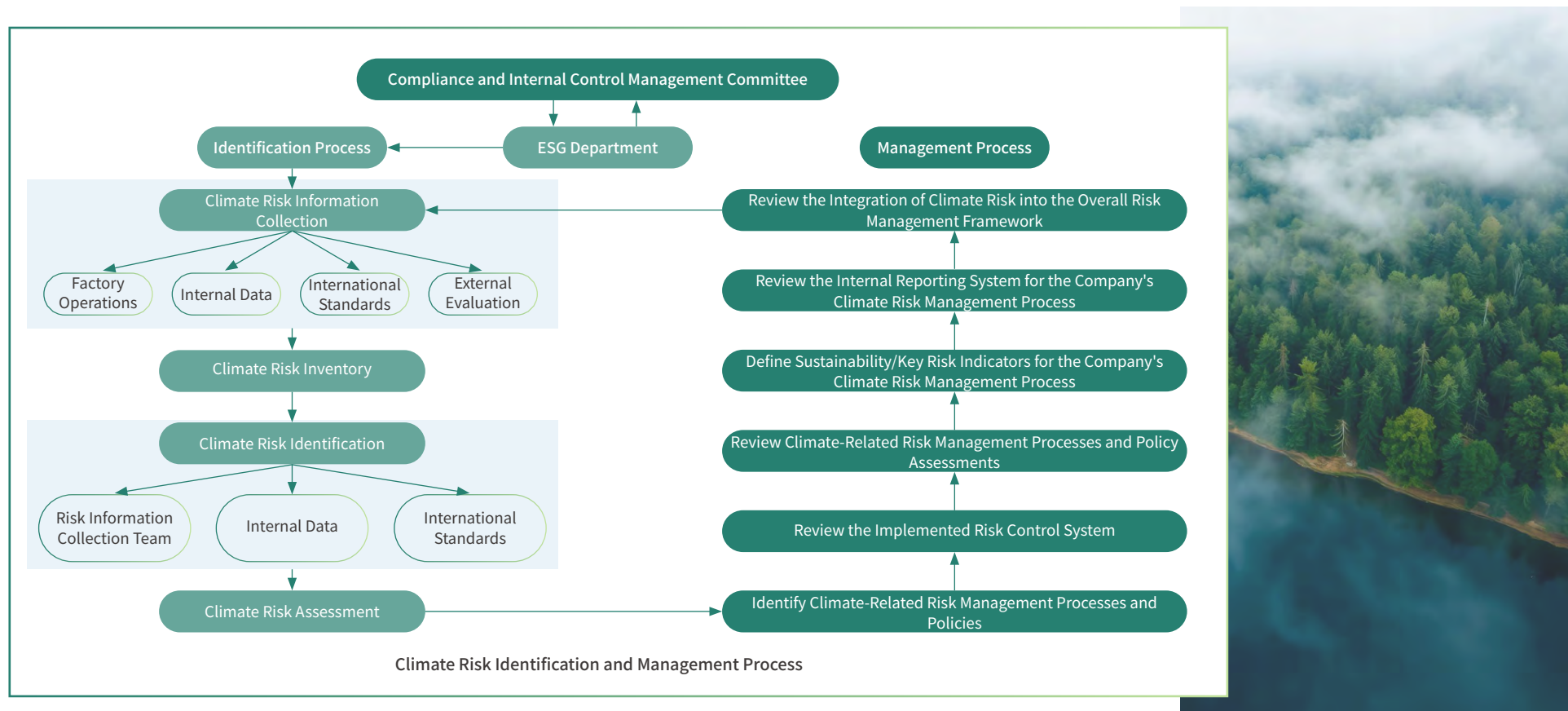
Strategy

JA actively responds to climate change, taking practical steps to support the *Paris Agreement's* goal of limiting the global temperature increase to 1.5°C. The Company has formulated four core strategies focused on developing climate-friendly products, empowering the green industrial chain, supporting social low-carbon transformation, and responding to physical climate risks, thereby building a climate management system that covers its own operations and the entire upstream and downstream value chain. Through continuous technological innovation and industrial collaboration, the Company is steadily advancing its own low-carbon transformation and climate adaptation capabilities, while also contributing to the global energy transition.

Strategy	Upstream	Own Operations	Downstream
Climate Product R&D Incorporate sustainable development principles throughout product lifecycle stewardship, enhancing the environmental and climate performance of products through multi-dimensional coordination in areas such as innovative R&D, smart manufacturing, low-carbon products, and system solutions.	In product design and material selection, priority is given to suppliers of green, low-carbon raw and auxiliary materials. We work with suppliers to carry out carbon footprint accounting and develop emission-reduction technologies.	Ecological concepts are embedded at the source of product design to create full life cycle green products, reducing the climate load through green technology innovation, green product design, and smart manufacturing.	Provide green smart solutions, implements circular packaging solutions, optimize warehousing and logistics, and actively promote product recycling initiatives.
Empowering the Green Industrial Chain Reduce the carbon footprint during the production phase, create full life cycle green products, and promote collaborative decarbonization across the upstream and downstream value chain.	Encourage suppliers to participate in the CDP supply chain decarbonization program to promote green and low-carbon development across the entire supply chain.	Reduce the life cycle carbon emissions intensity of products through the application of building-integrated photovoltaics and distributed photovoltaic power generation systems, while also promoting green production through integrated measures such as smart monitoring systems, high-efficiency equipment upgrades, and production process optimization.	Focus on collaboration across the entire industrial chain, builds green and smart high-bay warehouses, and improves green logistics practices.
Promoting Social Transformation Advocate a green culture, implements green office practices, promote energy conservation and emission reduction in operational processes for efficient green development, and empower green transformation projects at both business operations and recycling activities.	Empower suppliers through thematic training to improve their capacity for low-carbon transition.	Actively develop a green culture, conveying green principles through diverse measures such as green offices, environmental protection activities, and environmental training, integrating a low-carbon atmosphere and initiatives into daily operations.	Provide customized green smart solutions for downstream application scenarios to support social low-carbon transformation; undertake a national-level research project on PV product recycling and collaborate with PV product recycling organizations to advance the global recycling of waste PV modules.
Addressing Physical Risks Strengthen its own physical risk management and control, and improve emergency plan drills, while also encouraging supplier climate assessments and building smart warehousing systems to enhance the climate resilience of the entire chain.	Encourage suppliers to participate in CDP projects and promote their assessment of their own climate risks.	Conduct comprehensive climate risk assessments and business continuity assessments to proactively address potential risks. Climatic conditions are considered during the site selection phase for manufacturing bases and PV power stations, and emergency plans and drills are implemented during operations.	Build smart three-dimensional warehouses and employ intelligent methods to enhance the flexibility of logistics management, thereby improving the climate resilience of logistics operations.

Impacts, Risks and Opportunities Management

JA has integrated climate risk into its Enterprise Risk Management (ERM). In accordance with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations and the *Climate-related Disclosures* standard (IFRS S2) issued by the International Sustainability Standards Board (ISSB), the Company systematically conducts climate risk analysis and information disclosure. Based on the results of its climate scenario analysis, the Company continuously refines its mechanisms for identifying, measuring, and monitoring climate risks. It also formulates differentiated response strategies and action plans for different types of risks, such as physical risk and transition risk, to steadily enhance its climate risk management capabilities.



To accurately identify the climate risks and opportunities faced by JA in its business operations, we conduct comprehensive research on industrial risk impacts, retrospective analysis of historical events and data, and forward-looking market insights to systematically catalogue potential climate-related risks and opportunities. On this basis, we assess and prioritize these risks according to their likelihood and the severity of their impact, forming a climate risk and opportunity matrix that provides a scientific basis for formulating differentiated management strategies.

During the reporting period, JA identified a total of 18 categories of climate risks and opportunities with a significant impact on the Company, including 5 types of physical risk, 7 types of transition risk, and 6 types of transition opportunities.

Physical Risk

Physical Risk	Risk Description	Value Chain Scope	Time Horizon	Potential Financial Impact	Response Measures
Physical Risk – Acute					
Tropical Cyclone	• Damage to or inundation of factories and photovoltaic power plants in coastal provinces and regions. • Disruption of employee commuting and outdoor operations, leading to production interruptions and logistics delays. • Impact on the progress of construction projects such as factories and bases under development	Own operations Whole value chain	Short-Term Medium-Term Long-Term	Asset loss Increased operating costs	Strengthen the wind-resistant design of facilities, establish disaster emergency plans, improve weather warning systems, and purchase climate-related insurance.
Extreme Heat	• Prolonged high temperatures reduce the conversion efficiency of modules. • Increase factory cooling energy consumption and equipment failure rates. • Pose occupational safety risks such as employee heatstroke.	Own operations	Short-Term Medium-Term Long-Term	Reduced revenue from power generation Increased operating costs	Enhance the high-temperature resistance of modules and optimize heat dissipation systems, adjust outdoor work schedules.
River and Coastal Flooding	• Flooding can damage raw materials, equipment and factory foundations, lead to production disruptions and increase personnel safety risks.	Own operations Whole value chain	Short-Term Medium-Term	Asset loss Increased operating costs	Elevate factory foundations, optimize drainage and flood-control facilities, and purchase relevant insurance.
Extreme Precipitation	• Heavy rainfall can cause on-site waterlogging, leading to moisture damage to raw materials and their subsequent disposal. • Traffic delays affect employee commuting and logistics deliveries.	Own operations	Short-Term Medium-Term Long-Term	Increased operating costs	Upgrade plant facilities and drainage systems, establish emergency stockpiles, and optimize logistics routes.
Physical Risks – Chronic					
Water Scarcity	• Given the Company's reliance on water resources in certain production processes, water scarcity may lead to operational disruptions	Own operations	Long-Term	Reduced revenue Increased operating costs	Increase the use of recycled water and strengthen water conservation. Increase the water reuse rate.

Transition Risks and Opportunities

Transition Risk	Risk Description	Value Chain Scope	Time Horizon	Potential Financial Impact	Response Measures
Policy and Legal					
International Climate Policy	Low-carbon trade barrier policies: The EU has established a regulatory framework under the Circular Economy Action Plan (CEAP), imposing green market-access standards such as carbon footprint and recyclability requirements on photovoltaic products.	Own operations Whole value chain	Short-Term Medium-Term Long-Term	Increased compliance costs Reduced export revenue	Accelerate low-carbon product certification and establish overseas low-carbon manufacturing bases. Enhance the carbon footprint management system.
National Climate Policy	- Under China's "carbon peaking and carbon neutrality" goals, regulatory constraints on carbon emission intensity in the manufacturing sector are tightening. - Regulations such as the <i>Standard Conditions for the Photovoltaic Manufacturing Industry</i> impose stricter requirements on energy consumption, water consumption and carbon emission intensity. - The state has issued guiding opinions on promoting the circular utilization of decommissioned wind and photovoltaic equipment, advancing the recycling of photovoltaic equipment throughout its entire lifecycle.	Own operations Whole value chain	Medium-Term Long-Term	Increased operating costs Increased capital expenditure Reduced revenue	Invest in low-carbon technology R&D, implement low-carbon operations, and build a demonstration line for the comprehensive utilisation of end-of-life photovoltaic modules.
Technology Risks					
Technology Risks	- The rapid iteration of photovoltaic cell technology may lead to the premature obsolescence of existing production lines. - Rapid upgrades in production processes and equipment require high levels of R&D and capital investment.	Own operations	Short-Term Medium-Term	Increased operating costs Increased capital expenditure	Plan early for new technology R&D and pilot lines, and implement phased investment in upgrades.
Market Risks					
Industry Development Trends	- The photovoltaic industry continues to expand, leading to intensified market competition and greater price volatility risks - Diversified downstream energy application scenarios, such as BIPV and integrated photovoltaic storage and charging, require higher module performance and adaptability.	Own operations Whole value chain	Medium-Term Long-Term	Decreased revenue Impairment of inventory assets	Maintain competitiveness through cost reduction, efficiency improvement, and differentiated products and services.

Addressing Climate Change

Transition Risk	Risk Description	Value Chain Scope	Time Horizon	Potential Financial Impact	Response Measures
Upstream Raw Material and Energy Markets	- Demand for green electricity drives up the cost of low-carbon raw materials such as polysilicon. - Fluctuations in international energy prices increase electricity and transport costs associated with production.	Own operations Whole value chain	Short-Term Medium-Term	Increased procurement costs	Implement a diversified procurement strategy and enter into long-term agreements with suppliers to lock in prices.
Downstream Market Demand	- Overseas markets require product carbon footprint certification. - The distributed PV market prefers low-carbon modules.	Own operations Whole value chain	Medium-Term Long-Term	Increased operating costs	Further improve product technology to meet low-carbon and high-efficiency requirements, and expand coverage of environmental and carbon footprint certification.
Supply Chain Risk					
Sustainable Supply Chain	Upstream suppliers may have high carbon emissions or low energy efficiency, thereby increasing the overall carbon footprint of the supply chain and affecting the effectiveness of the Company's supply chain traceability.	Own operations Whole value chain	Medium-Term Long-Term	Increased operating costs	Strengthen the supplier ESG management system, conduct supply chain audits and risk assessments, and establish low-carbon strategic partnerships with key suppliers.
Transition Opportunities	Description of Opportunities	Value Chain Scope	Time Horizon	Potential Financial Impact	Response Measures
Low-Carbon Manufacturing	Reduce the carbon emission intensity of production processes through green electricity substitution and process innovation, while meeting increasingly stringent domestic and international low-carbon policies and market requirements.	Own operations Whole value chain	Short-Term Medium-Term Long-Term	Reduced operating costs Increased revenue	Implement a low-carbon process transformation plan, set product carbon footprint targets, and upgrade production equipment to achieve low-carbon manufacturing processes.
Circular Economy	- Closed-loop use of energy and materials during production, such as the recycling and reuse of residual silicon materials. - Develop component recovery and material recycling technologies to achieve circular utilization throughout the entire life cycle of photovoltaic products.	Own operations Whole value chain	Medium-Term Long-Term	Reduced raw material Costs Increased revenue	Formulate a circular economy implementation plan, invest in a demonstration line for the comprehensive utilisation of photovoltaic modules, and actively engage in R&D collaboration on the application of recycled materials.

Addressing Climate Change

Transition Opportunities	Description of Opportunities	Value Chain Scope	Time Horizon	Potential Financial Impact	Response Measures
Low-Carbon Value Chain	- The low-carbon transition in the photovoltaic (PV) industry is accelerating, increasing demand for carbon footprint management across the whole value chain. - Greater collaboration on emissions reduction among upstream and downstream enterprises creates new value opportunities.	Own operations Whole value chain	Medium-Term Long-Term	Increased revenue	Formulate a low-carbon supply chain strategy, encourage suppliers to set carbon reduction targets, strengthen green audits and collaboration across the supply chain, and optimize the green logistics system.
PV Cells and Modules Business	- The rapid iteration of PV cell technology and differentiated competition are becoming key factors in the industry, while improvements in module efficiency and cost reductions create competitive opportunities for enterprises. - The expansion of applications for PV solutions will create greater ecosystem value opportunities.	Own operations Whole value chain	Short-Term Medium-Term Long-Term	Increased revenue	Further enhance product performance and expand technology pathways to improve the efficiency of products and solutions while optimizing costs.
Smart Energy Operations Business	- Demand for digital and intelligent energy management systems is increasing. - Demand is also increasing for integrated green and smart solutions that combine distributed PV and energy storage systems.	Own operations Whole value chain	Medium-Term Long-Term	Increased revenue	Further develop low-carbon products and integrated solutions, build a multidimensional zero-carbon technology system, and provide diversified digital energy solutions.
Energy Market Demand	- Carbon neutrality goals being advanced worldwide are driving sustained growth in demand for photovoltaic installations, expanding potential market opportunities. - Demand from downstream markets for high-efficiency, low-carbon energy solutions is increasing, further broadening market demand.	Own operations Whole value chain	Short-Term Medium-Term Long-Term	Increased revenue	Formulate market expansion plans and enhance product delivery capabilities and local market competitiveness.

To comprehensively assess the potential impacts and expected financial impact of climate change on its business development, JA regularly conducts climate resilience analysis. The Company uses climate scenario analysis to update the physical risk scores and ratings of each asset, conducting specific assessments based on indicators such as assets susceptible to risk, revenue risk exposure, and value-at-risk. Simultaneously, the Company performs carbon cost risk simulations based on its own carbon reduction targets and scenario-based carbon emissions data and identifies and quantifies potential transition opportunities by integrating its strategic development plans with new energy market demand forecasts. Based on the results of the aforementioned financial impact analysis, the Company incorporates climate factors into the formulation and adjustment of its short, medium, and long-term strategic pathways to ensure its strategy is both adaptive and forward-looking.

For details, please refer to the *JA Environmental Sustainability Report*.

Targets and Metrics

GHG Emission Reduction Targets

JA has set GHG emission reduction targets, which have been validated by the Science Based Targets initiative (SBTi), clearly defining the Company's near-term and long-term reduction pathways to 2034 and 2050.

	Target Year	Scope 1 & 2 Target	Scope 3 Target
Near-Term Target	2034	Reduce absolute scope 1 and scope 2 GHG emissions by 58.8% from a 2023 base year.	Reduce scope 3 GHG emissions from purchased goods and services related to the production of each megawatt (MW) of solar products by 63.8% from a 2023 base year.
Long-Term Target	2050	Reduce absolute scope 1 and scope 2 GHG emissions by 90% from a 2023 base year.	Reduce scope 3 GHG emissions from purchased goods and services, capital goods, fuel- and energy-related activities, and upstream transportation and distribution by 97% per MW of solar-related products produced from a 2023 base year.
Net-Zero Target		Achieve net-zero GHG emissions across the value chain	

Greenhouse Gas Emissions

As a green energy solutions partner trusted by global clients, JA focuses on the R&D and manufacturing of solar products, which are widely used in residential, commercial, and power station generation systems. Based on the 2025 battery module shipment volume, the related products have cumulatively avoided over 40 million tCO₂e.

During the reporting period, all manufacturing bases conducted GHG inventories in accordance with the ISO 14064-1:2018 standard and the GHG Protocol and have obtained independent third-party verification statements.



	Unit	2025
GHG Emissions Intensity (Scope 1 + Scope 2 Market-Based)	tCO ₂ e/MW	34.45
Scope 1	tCO ₂ e	73,864.07
Scope 2 (Market-Based)	tCO ₂ e	2,322,401.95
Scope 2 (Location-Based)	tCO ₂ e	2,832,779.25
Scope 3	tCO ₂ e	19,894,355.25
Category 1: Purchased Goods and Services	tCO ₂ e	17,160,714.49
Category 2: Capital Goods	tCO ₂ e	919,205.37
Category 3: Fuel- and Energy-Related Activities (Not Included in scope 1 and scope 2)	tCO ₂ e	425,486.54
Category 4: Upstream Transportation and Distribution	tCO ₂ e	852,888.11
Category 5: Waste Generated in Operations	tCO ₂ e	8,685.14
Category 6: Business Travel	tCO ₂ e	8,268.34
Category 7: Employee Commuting	tCO ₂ e	6,192.92
Category 8: Upstream Leased Assets	tCO ₂ e	8,363.86
Category 9: Downstream Transportation and Distribution	tCO ₂ e	116,741.67
Category 10: Processing of Sold Products	tCO ₂ e	139,713.40
Category 11: Use of Sold Products	tCO ₂ e	4,280.13
Category 12: End-of-Life Treatment of Sold Products	tCO ₂ e	242,533.15
Category 13: Downstream Leased Assets	tCO ₂ e	234.64
Category 14: Franchises	tCO ₂ e	0.00
Category 15: Investments	tCO ₂ e	1,047.49

Emission Reduction Measures

In 2025, JA systematically advanced its carbon reduction efforts through technological innovation and value chain empowerment.

Reduction Pathway	Specific Actions
Technological Innovation: Product Life Cycle Carbon Reduction	 Green design and process optimization: Integrating low-carbon silicon, lead-free ribbons, and low-acid adhesive films along with 100% recyclable composite frames, while advancing thin wafer cutting and other process optimizations. Energy Conservation and Efficiency Improvement in Production Management: Promoting systematic energy management and energy-saving technological upgrades across global manufacturing bases, expanding the application of distributed PV and green electricity, and prioritizing the procurement of low-GWP refrigerant equipment and new energy vehicles within plant areas. Low-carbon packaging and green logistics: Optimizing silicon wafer packaging design (increasing capacity per box by 50%) and promoting the use of recyclable packaging boxes for adhesive films. Advancing road-rail/water-land multimodal transport and the transition from fuel to electric forklifts within plants, while exploring the use of biofuels for sea freight. Closed-loop products and recycling system: Collaborating with PV CYCLE to promote the global recycling of waste modules. Jointly establishing the "PV Recycle Industry Development Center" and investing in a demonstration line for the comprehensive utilization of modules to conduct pilot validations of efficient dismantling. 

Value Chain Empowerment: Deepening Supply Chain Decarbonization Management	Green procurement and supplier empowerment: Updating the <i>Responsible Sourcing Policy</i>, strengthening requirements for carbon footprint certification. Organizing specialized ESG training for over 100 core suppliers and guiding them to complete sustainable development self-assessments and indicator improvements. Deepening CDP supply chain cooperation: Participating in the CDP supply chain project for three consecutive years. In 2025, the Company successfully encouraged core suppliers, accounting for 74% of main and auxiliary material procurement value, to submit CDP questionnaires, significantly enhancing supply chain transparency. Pioneering a cutting-edge carbon accounting pilot: Collaborating with the professor teams from Harvard University to pioneer the E-liability carbon accounting method at the Yangzhou Manufacturing Base, completing detailed carbon footprint calculations for 6 mainstream TOPCon modules and providing a scientific basis for precise carbon reduction in the supply chain.
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Case study: Rooftop Photovoltaics Power Green Manufacturing

As a "National Green Factory" and a "National Smart PV Pilot Demonstration Enterprise", the Hefei Manufacturing Base leverages its green and smart manufacturing advantages by constructing a distributed PV power station on the coloured steel tile roofs of its factories and warehouses. The project operates on a "self-generation for self-consumption, with surplus power fed to the grid" model, effectively increasing the proportion of renewable energy used by the enterprise and promoting the low-carbon, green transformation and upgrading of its production operations. After commissioning, the project is expected to generate approximately 11,263,800 kWh of electricity annually.



The Distributed PV Project at the Hefei Manufacturing Base

Additionally, JA empowers more sectors with smart innovative solutions for energy conservation and emission. The Company has integrated self-developed AI algorithms and innovative achievements such as "PV-storage-flexible control" into diverse scenarios including education and healthcare, achieving a comprehensive energy-saving rate of 10%-30%.

Case study: Empowering Zero-carbon Campuses through Digital Twin Technology

At Xingtai Polytechnic Institute of New Energy, JA's Smart Energy Business Division uses a digital platform to achieve energy conservation and consumption reduction while ensuring a comfortable experience for teachers and students. During a cold wave, the digital system automatically adjusted classroom heating according to teaching schedules, matching pre-heating and post-class temperature adjustment modes. For dormitory areas, an algorithm optimised the nighttime heating mode based on student rest patterns, maintaining a perceived temperature of 20°C while reducing energy consumption by 15.6%. For the hot water heat pump units, the operations and maintenance team optimised control strategies through data analysis, extending equipment life and increasing thermal efficiency by over 15%. At the energy dispatch level, the platform, based on digital twin technology, coordinates various energy units such as PV, energy storage, and heat pumps in the cloud, increasing overall energy efficiency by 10% and significantly reducing carbon emissions intensity, thereby providing a replicable zero-carbon solution for the education sector.



Xingtai Polytechnic Institute of New Energy



Key Performance

In 2025,

JA's climate-related investment amounted to

RMB **49.23** million.

Practising Green Operations

Energy Management

Governance

JA strictly complies with relevant local laws and regulations at its operating locations, including the *Law of the People's Republic of China on Energy Conservation*, the *Renewable Energy Law of the People's Republic of China*, and the *Law of the People's Republic of China on the Promotion of Clean Production*. The Company has also formulated internal policies such as the *Energy Management Measures*, the *Energy Resource Management Policy*, and the *Energy Management Manual* to clarify responsibilities, business processes, and assessment requirements for energy management.

The Company has established a three-level energy management system covering "company-workshop-team" levels, cascading energy conservation targets and incorporating them into performance assessments to promote quantitative and systematic energy management. The headquarters sets top-level goals, which are then broken down by each manufacturing base into workshop-specific targets and detailed indicators, reinforcing accountability for energy saving. Through standardised metering specifications and cross-manufacturing base benchmarking analysis, each manufacturing base accurately identifies energy consumption disparities and develops improvement projects, accordingly, forming a data-driven, closed-loop optimization management mechanism.

Key Performance



In 2025,

A total of **9** manufacturing bases of JA obtained ISO 50001 energy management system certification



Strategy

JA continuously promotes green production in its own operations, building a low-carbon manufacturing system focused on three main directions: energy-saving technological upgrades, energy substitution, and system optimization.

Energy-Saving Technological Upgrades

Based on the cornerstone of improving energy efficiency, systematically promoting energy conservation, consumption reduction, and the efficient use of resources.

Energy Substitution

Accelerating the replacement with clean energy and expanding the application scale of renewable energy in manufacturing processes.

System Optimization

Leveraging digital methods to build an intelligent energy management system and strengthen energy efficiency control throughout the entire process.



Impacts, Risks and Opportunities Management

JA continuously strengthens its energy management capabilities, comprehensively identifying and responding to the potential impacts of climate change and the energy transition.

Risk/Opportunity Type	Risk/Opportunity Description	Response Strategy
Physical Risk	Climate change may lead to a higher frequency of extreme weather events, affecting the stability of the power supply.	Constructing photovoltaic power stations to generate solar power, reducing reliance on traditional energy sources, and mitigating the impact of climate change on energy supply. Strengthening the disaster prevention capabilities of key facilities and enhance emergency response and recovery capacities.
Transition Risk	Increasingly stringent government energy-saving requirements for key energy-consuming units may lead to higher compliance costs. During periods of peak electricity demand in summer, power supply authorities may impose restrictions on industrial electricity use, leading to production cuts or shutdowns.	Conducting special electricity inspections to ensure a stable power supply for production and operations. Optimizing the energy mix and promote the substitution of renewable energy. Implementing staggered electricity consumption management to enhance flexibility in energy use.
Transition Opportunities	Government support for energy conservation and emissions reduction is increasing, with supportive policies such as interest subsidies and funding for energy-saving projects.	Continuously carrying out energy improvement initiatives to ensure the achievement of annual energy performance targets and emissions reduction goals. Proactively applying for programmes such as Green Factory and Energy Management System certification.

The Company comprehensively prevents and controls energy risks through mechanisms such as pre-holiday safety preparations, special electricity inspections, responses to severe weather, and self-inspection and correction of materials.

JA's Core Energy Control Measures for 2025

Closed-Loop Digital Management



Promoting end-to-end integration of data cleansing, logic streamlining and application development to enhance data-driven decision-making capabilities.

Energy Consumption Benchmarking and Early Warning



Conducting multi-dimensional energy consumption benchmarking and analysis every two weeks, with real-time monitoring of deviations and automatic alerts for anomalies.

Standardized Application for All Employees



Promoting standardised energy consumption management templates to standardize processes and enhance the energy-saving awareness of all employees.

Continuous Optimization of System Functions



Continuously optimizing the system's data analysis functions based on energy management needs.

Practising Green Operations

Facing an external environment of energy structure transition and tightening policies, the Company actively seizes opportunities for green and low-carbon development. It has implemented initiatives such as energy consumption benchmarking, production and efficiency enhancement, equipment upgrades, and 100-day inspections. Through manufacturing base empowerment and experience-sharing mechanisms, the Company promotes the replication and dissemination of best practices, further improving overall energy use efficiency, energy management standards, and risk resilience.

Energy Management and Efficiency Improvement Initiatives at JA's Manufacturing Bases in 2025

Shijiazhuang
Manufacturing
Base

By optimising the compressed air supply pressure in the workshop, adjusting equipment air supply pressure, modifying the frequency of exhaust fans, and cleaning the condensers of air conditioning units, the base effectively improved system operating efficiency, resulting in cumulative annual electricity savings of approximately 9,000 MWh.

Ningjin
Manufacturing
Base

Using cooling water to regulate hot water temperatures, thereby reducing the energy consumption of hot water units, saving an average of approximately 4,000 kWh per day.

Modifying the air inlets and outlets of air handling units to reduce wind resistance, increase airflow, and lower electricity consumption, saving approximately 5,000 kWh per day.

While ensuring class 1,000 cleanroom standards, the operating speed of Fan Filter Units (FFUs) was reasonably reduced, saving approximately 4,500 kWh per day.

Dongtai
Manufacturing
Base

By adjusting the workshop's exhaust and air conditioning systems and reducing the frequency of inverters, the base operated at a lower load while ensuring cleanroom standards and positive pressure were met, thereby reducing electricity consumption. The estimated annual electricity savings are 2,000 MWh.

A 12 MW/24 MWh energy storage system was constructed, adopting an operational strategy of "charging at off-peak times and discharging at peak times, charging at flat times and discharging at peak times", which can achieve a daily electricity regulation of 48 MWh.

Utilising low-cost electricity at night to start cooling units for cold storage and using low-temperature chilled water for cooling during peak electricity consumption periods in the daytime, achieves peak shaving and valley filling, effectively reducing energy consumption and carbon emissions.

Vietnam
Manufacturing
Base

Energy inspection activities were organized and based on the analysis of electricity data and energy consumption needs, 2 electricity-saving plans were implemented. This involved shutting down 5 transformers, reducing annual no-load losses by approximately 926 MWh.

Yiwu
Manufacturing
Base

By optimizing the process temperatures and heating times of high-temperature equipment in the workshop, implementing zoned temperature control, and rationally regulating the start-stop frequency and operating efficiency of high-energy-consuming facilities like air conditioners, chillers, and air compressors, the base effectively reduced electricity consumption for production, with estimated annual savings exceeding 19.7 MWh.

Baotou
Manufacturing
Base

Multiple energy-saving measures were implemented, saving over 4,700 tonnes of standard coal equivalent annually.

Enhancing the efficiency of the compressed air system through the coordinated control of screw compressors.

Integrating heat pump resources to provide a unified heat source for both process and domestic use.

Optimizing the air supply pressure and network configuration of air compressors to reduce operational energy consumption

Adopting variable frequency control and sensor linkage for the wafer cooling water system to increase the utilisation of natural cooling and reduce refrigeration energy consumption.

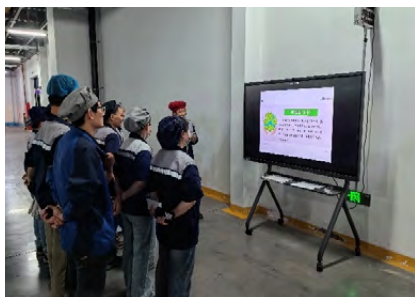
Bayannur
Manufacturing
Base

While ensuring the ventilation requirements for the welding process were met, the operating parameters of the organic exhaust fans were finely adjusted. The fan motor's operating frequency was reduced from 45 Hz to 27.9 Hz, which is estimated to save 28.8 MWh of electricity per month.

In addition, each manufacturing base organized training sessions on interpreting energy-saving policies, analysing industry benchmark cases, and applying energy consumption diagnostic tools. Various departments then conducted secondary dissemination and practical guidance for all employees, translating environmental awareness into concrete actions.

Case study: Hefei Manufacturing Base Conducts "Energy Conservation and Emission Reduction, Low-carbon Living" All-staff Training

In 2025, the EHS Management Department at the Hefei Manufacturing Base provided energy conservation training to full-time and part-time safety officers from various functional departments and workshops. These departmental safety officers then conducted targeted awareness sessions for their respective staff. Workshop safety officers focused on launching low-carbon action initiatives for front-line employees, ensuring green concepts permeate all aspects of production and operations. This cascade training model effectively raised the energy conservation and environmental protection awareness of all employees.



Energy Conservation Training at the Hefei Manufacturing Base

Case study: Ordos Manufacturing Base Conducts Digitalization Training for Facilities Management

In 2025, the Ordos Manufacturing Base organized a special training session on the "digitalization of facilities management" for its facilities management team. The training centered on the key technologies, core tools and implementation pathways for facilities digitalization, with a focus on enhancing the capabilities of facilities management personnel in areas such as data collection, real-time analysis, anomaly warning and data-driven decision-making.



Targets and Metrics



2025 Energy Management Targets

		Wafering Projects	Cell Projects	Module Projects
Annual Reduction Rate of Energy Intensity	2025 Target	3%	2%	1%
	2025 Actual	Decreased 20.03% 	Decreased 16.19% 	Decreased 14.05% 



2025 Energy Usage

	Unit	2025
Comprehensive Energy Consumption	tce	752,328.54
Comprehensive Energy Consumption Intensity	tce/MW	10.82
Clean Energy Consumption	MWh	2,440,655.19
Annual Green Electricity Usage Ratio	%	41

Water Resource Management

JA strictly complies with the *Water Law of the People's Republic of China* and relevant regulations in all locations where it operates. Through internal systems such as the *Energy and Resource Management Procedures*, the Company implements standardized full lifecycle management of water resources, from abstraction and use to recycling, reuse and discharge.

The Company has established a four-level governance structure, with the Strategy and Sustainability Committee responsible for overall decision-making, the Work Safety Committee for technical oversight, the Plant Management Department for supervision and execution, and each manufacturing base for specific implementation, forming a closed-loop management system that covers the entire process from strategic planning to daily operations. The Company links water conservation targets to the executive compensation of senior managers, including the general managers of each site. Furthermore, all manufacturing bases have fully integrated water consumption indicators into their environmental stewardship assessment systems, ensuring that responsibility for water resource management is cascaded down through all levels.



JA Water Resource Management Structure

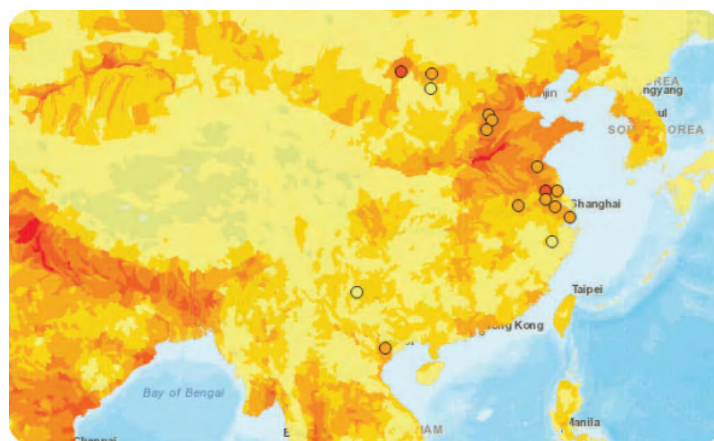


Water Risk Assessment

JA's water consumption for production is primarily concentrated in the cell manufacturing process, with the main source being municipal water supplies, supplemented by sources such as groundwater and rainwater. During the reporting period, the Company did not experience any significant direct or indirect impacts on water resources resulting from changes in water abstraction, consumption, discharge, or storage levels.

To further strengthen its water resource management, the Company conducted water risk assessments for its major manufacturing bases using the World Resources Institute's Aqueduct tool and the World Wide Fund for Nature's Water Risk Filter tool. Through cross-validation between the two tools and consideration of actual water consumption, the water stress level of each manufacturing base was confirmed. This assessment covers three main dimensions—physical, policy and regulatory, and reputational risks—which are further broken down into 12 risk indicators, including water availability, water scarcity, and water quality. Based on this quantitative analysis, The Company accurately identifies the water risk characteristics of different regions and formulates region-specific management strategies and action plans, continuously enhancing the sophistication of its water resource utilisation management.

Physical Water Risk Distribution of Each Manufacturing Base



- Very low risk $1.0 \leq x \leq 1.8$
- Low risk $1.8 < x \leq 2.6$
- Medium risk $2.6 < x \leq 3.4$
- High risk $3.4 < x \leq 4.2$
- Very high risk $4.2 < x \leq 5.0$
- Extreme risk $5.0 < x \leq 6.6$

Water Risk Assessment Results for JA

Risk Level \ Risk Type	Physical Risk ¹	Regulatory Risk ²	Reputational Risk ³
Very High Risk	0	0	0
High Risk	2	0	0
Medium Risk	11	1	13
Low Risk	3	0	3
Very Low Risk	0	15	0

According to the water risk assessment results, the water resource risks at all manufacturing bases of JA are generally within a controllable range. Regulatory risks are universally low, reflecting the Company's robust management of compliance and policy requirements in its operations. In terms of physical risk, two manufacturing bases are located in high-risk areas, while the remainder are in low-to-medium-risk areas. Regarding reputational risk, all sites are classified as low-to-medium risk. Concurrently, we conducted a systematic analysis of water usage within the JA supply chain using the World Resources Institute (WRI)'s Water Risk Atlas tool. The results indicate that 58% of key suppliers are situated in basins with high or extremely high water stress, a finding that highlights the concentrated distribution of water resource risks in the supply chain and provides a scientific basis for developing targeted water resource management strategies.

Based on its current water risk assessment, JA has proactively conducted scenario analysis for 2030 and 2050, quantitatively assessing the physical, regulatory, and reputational risks at its operating locations under positive, current, and pessimistic scenarios. The results show a polarisation of the Company's overall risk profile: regulatory risks remain low in most scenarios, demonstrating strong compliance resilience; physical risks are gradually increasing, with the proportion of high-risk and very-high-risk areas projected to rise from 38% in 2030 to 52% in 2050, making water availability and supply pressure core challenges; and reputational risks are high across all three scenarios, with approximately 70-80% of sites classified as high or very high risk. Overall, physical risk and reputational risk are key areas for future focus, and while regulatory risks are generally manageable, individual high-risk sites will require continuous monitoring under the pessimistic scenario.

For further details, please refer to the *JA Environmental Sustainability Report*.

¹Physical Risk primarily refers to the condition of a river basin under natural conditions and human impacts, covering risk categories such as water availability, drought, flood, water quality, and the state of ecosystem services. Specific manifestations include issues like insufficient water volume, excessive water volume, unusable water bodies, and/or degradation of surrounding ecosystems.

²Regulatory risk primarily requires companies to have sound governance principles, covering risk categories such as an enabling environment, institutions and governance, management tools, and Water, Sanitation and Hygiene (WASH) infrastructure.

³Reputational Risk primarily refers to the assessment by stakeholders and local communities of whether a company conducts its water-related business in a sustainable and responsible manner. This type of risk can have a material impact on key indicators such as brand value and market share, and it covers categories including environmental factors, socioeconomic factors, and other reputational factors.

Water Conservation Initiatives

JA actively explores pathways for water recycling, advancing diversified projects such as rainwater harvesting, reclaimed water reuse, and wastewater reclamation tailored to local conditions at each manufacturing base. These efforts continuously increase the water reuse rate, effectively replacing fresh water intake and steadily reducing the environmental impact of our water resource use.

Baotou Manufacturing Base	Water reclamation project: Wastewater is transported via dedicated pipelines to the industrial park's water reclamation plant. After treatment, the high-quality reclaimed water is reused for wafer cooling, washing replenishment, and park greening. This creates a closed loop of "wastewater-reclaimed water-production replenishment", significantly reducing fresh water consumption and achieving efficient water recycling.
Dongtai Manufacturing Base	Rainwater harvesting project: Rainwater from the plant area is collected and stored in dedicated collection ponds. After filtration, it is used as make-up water for the power station's cooling towers and for non-production cleaning purposes. Reclaimed water reuse project: Reclaimed water is reused in the acid-base purification towers for exhaust gas from the cell production workshop, which reduces the Company's consumption of mains water and lowers wastewater treatment costs at the wastewater station.
Shijiazhuang Manufacturing Base	Wastewater reclamation project: By implementing process optimization, tiered treatment, and deep reuse strategies, the base achieved a reclaimed water volume of 586,300 cubic meters, resulting in an overall wastewater reuse rate of 26%.

Selected Water Conservation Initiatives at JA Manufacturing Bases for 2025

2025 Water Resource Management Target	2025 Progress
Reduce water consumption per unit of production capacity by 2% compared to 2024	Achieved

Key Performance

During the reporting period,

Total water consumption:

7.98 million cubic meters

Total water withdrawal:

23.45 million cubic meters

Alternative water source withdrawal:

1.95 million cubic meters

Annual ultra-pure water usage:

11.46 million cubic meters

Recycled water volume:

11.42 million cubic meters

Total water withdrawal in areas with high or extremely high baseline water stress:

13.91 million cubic meters

Percentage of total water withdrawal in areas with high or extremely high baseline water stress:

59.32%

Emissions and Waste Management

JA considers the management of emissions and waste a core component of its environmental governance. The Company strictly adheres to all relevant laws and regulations in its operating locations and has established a comprehensive control system covering the entire process for waste gas, wastewater, and solid waste. Adhering to the principles of "reduction at source, control in process, treatment at the end-of-pipe, and resource recovery", the Company continuously reduces the intensity of pollutant emissions and the volume of waste generated through process optimization, technological upgrades, and intelligent monitoring. Furthermore, we incorporate relevant emissions data into the management level performance assessment system to ensure that targets for reduction, compliant disposal, and resource recovery are effectively met. Leveraging a digital platform, we strengthen real-time monitoring and compliance management to promote stable, standards-compliant, and green circular operations at all manufacturing bases, thereby diligently fulfilling our corporate environmental responsibilities.

2025 Emissions and Waste Management Targets	2025 Progress
100% compliance rate for wastewater discharge	Achieved
100% Compliance rate for gas emissions	Achieved
Comprehensive waste conversion rate target ≥50%	Achieved

Gas Emissions Management

JA strictly complies with the requirements of the *Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution* and relevant local regulations. The Company has formulated and implemented internal management systems, such as the *Air Pollutant Emission Control Standards* to achieve full-chain monitoring and management of air pollutants, from source control and in-process treatment to end-of-pipe purification.

The main air pollutants generated during the Company's production processes include nitrogen oxides (NOx), sulphur oxides (SOx), volatile organic compounds (VOCs), ammonia, and particulate matter (PM). To effectively control gas emissions, JA fully implements a dual supervision mechanism of "self-inspection + external audit". Each manufacturing base is equipped with high-efficiency gas treatment facilities and employs continuous online monitoring to ensure that all air pollutants are consistently discharged in compliance with standards.

A Dual Control Mechanism of "Self-inspection + External Audit"

Online monitoring system: Provides real-time feedback on exhaust gas emissions and dynamically tracks changes in emission indicators, enhancing the timeliness and accuracy of monitoring.

Equipment operation and maintenance management: A standardized inspection system for environmental protection equipment has been established, with dedicated personnel responsible for daily inspections and regular maintenance to ensure the stable and efficient operation of pollution control facilities.

The diagram consists of two overlapping light green circles. The left circle contains a magnifying glass icon and the text 'Self-Inspection'. The right circle contains a person icon and the text 'External Audit'. The overlapping area in the center represents the integration of both mechanisms.

Third-party monitoring and assessment: Qualified third-party organizations are regularly commissioned to conduct routine monitoring of exhaust gas emissions and environmental quality at each manufacturing base.

To implement exhaust gas control requirements, JA drives its manufacturing bases to introduce advanced governance technologies and conduct targeted renovations and operational optimizations based on their specific production processes and actual emissions.

JA's Exhaust Gas Management Measures in 2025

Dongtai
Manufacturing
Base

ALD Exhaust Gas Treatment Project: The battery manufacturing department implemented targeted optimization and upgrading of the ALD exhaust stack, focusing on improving the collection, capture and disposal processes for particulate matter generated during the production purge stage, thereby significantly improving particulate matter treatment efficiency.

Yangzhou
Manufacturing
Base

Establishment of an online monitoring system: By creating an online monitoring platform for the exhaust gas system, key emission indicators are monitored in real time. This is integrated with an online power monitoring system for exhaust gas treatment equipment, enabling timely alarms for abnormal shutdowns of pollution control facilities and prompt restoration of their operation to ensure compliance with emission standards.

Water-based flux substitution: For the soldering process in battery manufacturing, a new environmentally friendly, no-clean, water-based flux has been introduced to completely replace the traditional flux. The propanol content in this new flux is 50% lower than that of traditional flux, significantly reducing the release of VOCs during production.

Xingtai Jinglong PV
Materials Co., Ltd.

Maintenance of exhaust gas treatment facilities: The annual maintenance plan for exhaust gas governance equipment is strictly implemented. Throughout the year, filter cotton/bags were replaced three times and waterproof honeycomb activated carbon was fully renewed once, effectively guaranteeing front-end filtration efficiency and adsorption performance to ensure stable, compliant exhaust gas emissions.

JA's Air Pollutant Emissions in 2025

Indicator	Unit	2025
Nitrogen Oxides (NOx)	kg	28,664.98
Sulphur Oxides (SOx)	kg	4,409.25
Volatile Organic Compounds (VOCs)	kg	181,370.98
Fluorides	kg	19,969.96
Chlorine Gas	kg	4,516.16
Ammonia	kg	7,372.49
Hydrogen Chloride	kg	29,554.96
Hydrogen Sulphide	kg	363.81
Cooking Fumes	kg	665.42
Particulate Matter (PM)	kg	85,053.75
Benzenes	kg	42.35

Wastewater Management

JA strictly complies with relevant laws and regulations in its operating locations, such as the *Law of the People's Republic of China on the Prevention and Control of Water Pollution*, and has formulated internal management systems including the *Wastewater Management Procedures* to systematically regulate the entire process of wastewater collection, treatment, discharge, and reuse. The wastewater generated during the Company's production and operations primarily include industrial wastewater from processes such as machining and cleaning; domestic sewage from areas like canteens and restrooms; and other wastewater, including emergency discharge, cooling tower drainage, and boiler and power station drainage from the plant.

To effectively manage various types of wastewaters, the Company has built an advanced treatment system covering both production and domestic areas, equipped with key facilities such as filters, ultrafiltration units, reverse osmosis units, and pH adjusters for efficient wastewater purification. All externally discharged wastewater undergoes rigorous testing before release to ensure that all pollutant indicators consistently meet standards. Concurrently, the Company continuously optimises its wastewater treatment processes to enhance the wastewater reuse rate, thereby minimising water resource consumption and waste. Building on this systematic control framework, each manufacturing base carries out specialised renovations and process optimizations based on its operational realities, continually promoting wastewater reduction, resource reuse, and risk prevention and control.



Wastewater Management Measures at JA's Manufacturing Bases in 2025

Ningjin Manufacturing Base

Wastewater recovery project

Continuously exploring potential for optimization, the dilute acid and alkali system was renovated. Backwash water and some of the concentrate from the ultrafiltration and multi-media units, which were previously discharged into the tertiary defluorination system, are now redirected to the raw water pool for reuse, effectively increasing the recovery rate of dilute acids and alkalis.

Qijing Manufacturing Base

Sewage station renovation project

To address silicon-containing wastewater from the degumming and cleaning process, the process was optimised by eliminating the flocculation and sedimentation stage. Instead, a filter press is used for direct dewatering, achieving efficient dewatering of silicon sludge and rapid entry of the filtrate into the biochemical treatment system. This has improved treatment efficiency and stability, reduced chemical dosage, and effectively lowered the shock load on the biochemical system.

Yangzhou Manufacturing Base

RCA Cleaning Process Optimization

By optimising the concentration ratio of the acid tank solution and the cleaning procedures of the RCA cleaning machines, the Company improved acid utilisation efficiency. Hydrofluoric acid consumption per wafer was reduced from 2.34 mL to 1.63 mL, and acid consumption was reduced by 1.5 L per 10,000 wafers. This resulted in an annual reduction of approximately 710,000 tonnes of wastewater, significantly lowering the treatment load of fluoride-containing wastewater and the generation of hazardous waste.

Hefei Manufacturing Base

Wastewater discharge monitoring and alarm system

The Company developed and deployed an intelligent monitoring and alarm system for wastewater emissions, setting pre-warning thresholds below statutory limits. When pollutant concentrations exceed these limits, the system immediately triggers audible and visual alarms, automatically stops the lift pump, closes the main discharge solenoid valve, and cuts off the external discharge channel, thereby automatically intercepting non-compliant wastewater and effectively preventing the risks of excessive emissions.



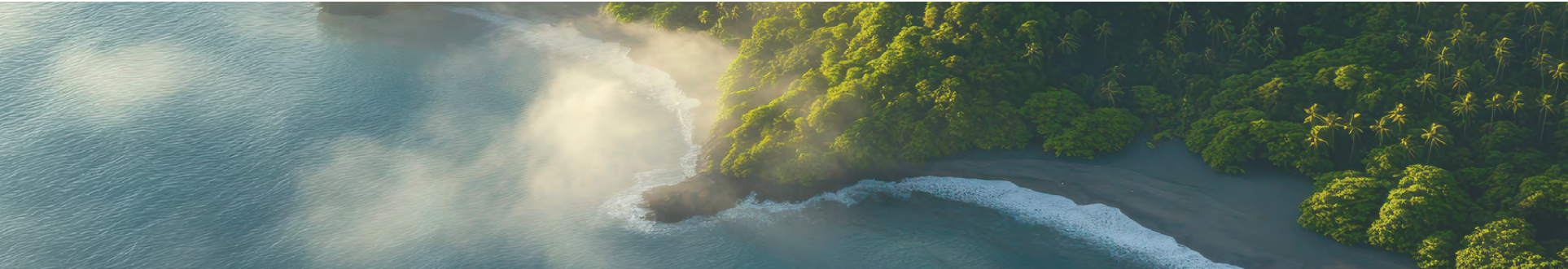
JA's Water Pollutant Emissions for 2025

Indicator	Unit	2025
COD	tonne	891.91
BOD	tonne	216.73
Ammonia Nitrogen	tonne	76.07
Total Nitrogen	tonne	173.36
Total Phosphorus	tonne	2.21
Fluoride	tonne	40.50
SS	tonne	194.56
Anionic Surfactant	tonne	0.19
Petroleum	tonne	7.91

Waste Management

JA strictly complies with relevant laws and regulations in its operating locations, such as the *Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste* and has formulated internal systems and management measures including the *Waste Management Procedures*. The Company has established a comprehensive waste disposal ledger to meticulously record and dynamically track key data such as generation, disposal, and emission volumes. Based on the nature of the waste, it also implements classified management and strictly regulates all stages of storage, disposal, and transportation.

Waste Type	Storage	Disposal	Transportation
General Solid Waste	General solid waste storage areas are managed by dedicated personnel, clearly marked with signs, have designated responsible persons, and operate under a ledger system for incoming and outgoing materials.	Recyclable waste such as wood, cardboard, packaging materials, pallets, glass, and metal waste is handed over to licensed contractors for recycling and processing.	Waste disposal contractors must assign trained and qualified personnel for operations and adhere to the local rules and regulations of JA.
Domestic and Kitchen Waste	Lidded rubbish bins are placed in appropriate locations to prevent the spread of odours. Domestic waste is disposed of regularly according to the volume generated.	Waste is handed over to qualified contractors for disposal in accordance with regulatory requirements.	Contractor personnel, vehicles, and drivers must complete registration procedures before entering the plant. They must be accompanied by designated personnel to the specified waste collection area and are strictly prohibited from operating outside their assigned zones.
Hazardous Waste	Before storage, ensure packaging is secure and sealed, container lids are tightened, and valves are closed. Loose materials must be neatly stacked and contained. Compliant hazardous waste labels must be affixed to outer packaging. Liquid hazardous waste storage areas are equipped with anti-seepage bunds. Outdoor storage areas are kept away from stormwater drains to prevent leaks from entering water bodies. Incoming and outgoing records must be strictly maintained.	Disposal is entrusted to legally qualified contractors. Proper packaging and labelling are completed before disposal to ensure safe transportation.	Transport vehicles must be in good condition and follow prescribed routes; any vehicle with abnormalities such as oil leaks or excessive wear is prohibited from entering the Company's operational areas.



JA places great importance on the standardised management of toxic and hazardous waste. While strictly adhering to national laws and regulations, the Company continuously optimises its control measures to comprehensively enhance the sophistication of its toxic and hazardous waste management.

Management Measures for Hazardous Waste at JA



Full Life-Cycle Management

Establishing a management system covering the entire process for hazardous substances, from procurement and warehousing to storage, use, and waste disposal, ensuring clear responsibilities and standardised operations at every stage.



Emergency Response Capacity Building

Revising and improving emergency response plans, regularly organizing emergency drills, and equipping key areas with specialised emergency supplies to enhance the capacity for rapid response and handling of sudden environmental incidents.



Pollution Spread Prevention and Control

Utilising infrastructure such as anti-seepage bunds and collection ditches to effectively block the spread of pollutants; contaminated media is collected separately and handed over to qualified units for compliant disposal to prevent secondary pollution.



Working Environment Optimization

Enclosed and automated modifications are implemented in toxic and hazardous work areas, with simultaneous optimization of ventilation systems to reduce the risk of occupational exposure. Employees in relevant positions are provided with appropriate personal protective equipment to ensure their health and safety.



Source Substitution and Reduction

The Company proactively selects less hazardous alternative materials to reduce the use of harmful substances at the source, thereby lowering subsequent processing pressures and environmental impacts.

Each JA manufacturing base periodically conducts waste audits to comprehensively analyse waste generation processes and current management practices, identifying methods for reduction. Based on this, targeted action plans and improvement projects are formulated to reduce waste generation at the source. By integrating internal recycling with external collaborative mechanisms, the Company enhances resource circularity and continuously reduces the volume of waste sent to landfill.

The Company regularly checks the inventory of waste entering and leaving warehouses based on its waste ledger. It has established improvement and innovation projects focusing on high-volume waste streams such as calcium fluoride sludge. Following successful technological breakthroughs, mature practices are replicated and promoted across all manufacturing bases. Specialised training and promotional activities for reduction plans are also organized, effectively turning waste into valuable resources while reducing both sludge production and disposal costs.

Waste Reduction and Recycling Measures at JA's Manufacturing Bases in 2025

Qujing
Manufacturing
Base

Source reduction and process optimization: Through process improvements, the consumption of rod-bonding adhesive in the workshop has been significantly reduced, effectively minimising waste adhesive. Concurrently, the wastewater station has optimised its treatment process for fluoride-containing wastewater, substantially decreasing the consumption of activated alumina and reducing the amount of hazardous waste from the source.

Yangzhou
Manufacturing
Base

Replacement with a water-based flux: A new environmentally friendly no-clean water-based flux has been introduced to replace traditional flux, reducing the use of hazardous substances at the source. The propanol content in this new flux is 50% lower than that of conventional products, effectively reducing occupational exposure levels in the workplace and total emissions of toxic and hazardous substances.

Baotou
Manufacturing
Base

Reuse of calcium fluoride sludge: The composition of sludge that was originally landfilled was analysed. In collaboration with a cement factory, it is now used as a raw material to produce building materials. This initiative reduces landfill volume by approximately 1,200 tonnes annually and lowers the risk of secondary soil pollution from fluoride ions, achieving the resourceful utilisation of hazardous waste.

Bayan Nur
Manufacturing
Base

Waste reduction: By adjusting processes and refining waste sorting management, the disposal method has shifted from incineration and landfill to prioritising recycling. The recycling rate of hazardous waste has increased to 8.4%, significantly alleviating environmental pressure and promoting a transition from "end-of-pipe disposal" to a "circular resource" model.

Awards and Honors:

In 2025,

The Hefei Manufacturing Base was awarded the title of
"Waste-Free Factory" at the municipal level.

Key Performance

2025:

Total hazardous waste generated:

2,567.07 tonnes

Total non-hazardous waste generated:

243,145.70 tonnes

Total waste recycled:

237,522.21 tonnes



Biodiversity Conservation

JA actively responds to the calls of the *United Nations Convention on Biological Diversity*, the *Kunming-Montreal Global Biodiversity Framework*, and *China's National Biodiversity Conservation Strategy and Action Plan (2023–2030)*. We have formulated and published the *Biodiversity Policy*, incorporating biodiversity impact assessments into the full life cycle management of projects to ensure that all new projects avoid ecologically sensitive areas. Through continuous exploration and active implementation of relevant measures, we strive to reduce the impact of our production and operations on the natural environment. We have also made a biodiversity commitment and a zero-deforestation commitment, while encouraging our suppliers, contractors, and partners to adopt or comply with these commitments.



Biodiversity Commitment: Continuously enhance biodiversity management performance and refrain from operating near sites harboring globally or nationally significant biodiversity. This policy applies to all JA subsidiaries and manufacturing bases worldwide, and encourages suppliers, contractors, and partners to adopt or adhere to it.



Zero-Deforestation Commitment: Forests serve as vital global barriers against climate change and are pivotal in safeguarding biodiversity and ecological equilibrium. We monitor forest conservation trends, collectively advance forest preservation, and foster shared prosperity for humanity and the planet. By joining forces to tackle climate change, we harness corporate influence to drive governance and oversight, propelling the realization of harmonious coexistence between humankind and nature.

Nature-Related Risk Assessment

As the first Adopter of the *Taskforce on Nature-related Financial Disclosures (TNFD)* in the photovoltaic industry, JA assesses the impacts and dependencies between its global offices, manufacturing bases, and self-owned power stations and the surrounding ecosystems using the LEAP model. It has published the world's first TNFD report for the photovoltaic industry.

L-Locate

Using the World Database of Protected Areas, we identify the proximity of JA's offices, manufacturing bases and self-owned power stations to biodiversity conservation areas.

E-Evaluate

By referencing international resources and databases and through internal and external communication, we analyse JA's dependencies on the natural environment and our impacts on it.

A-Assess

By referencing TNFD guidance and taking into account the external environment and the Company's circumstances, we analyze JA's nature-related risks and opportunities.

P-Prepare

Continuously improve and implement the *Biodiversity Policy*, create nature-friendly operating sites, and actively carry out various eco-friendly initiatives.

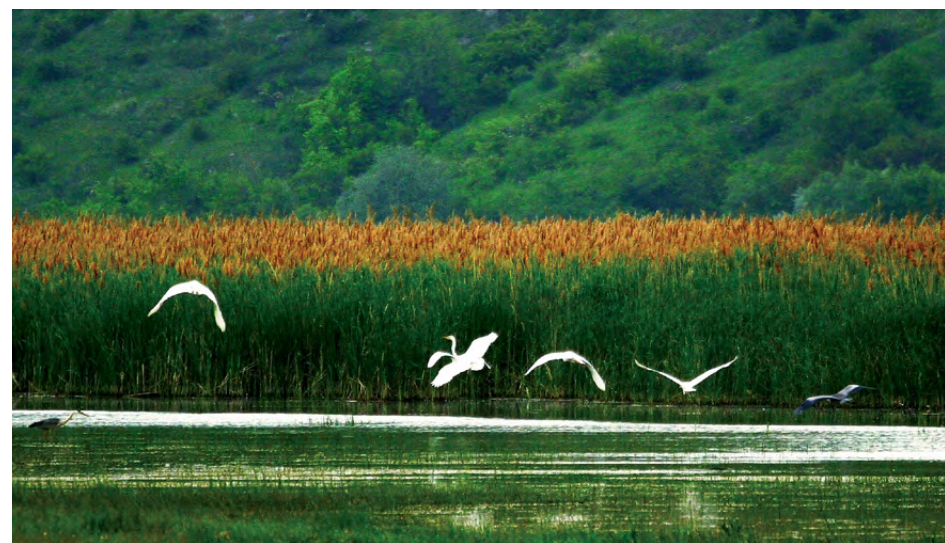
To identify and manage nature-related risks and opportunities, JA employs an operational control-based approach, using IBAT¹ and BIA² tools to evaluate its operational sites, including the head office platform, production plants, centralized power stations, and the Xingtai Polytechnic Institute of New Energy. We investigated the biodiversity status, as well as the distribution of protected areas and habitats, within 10-km and 20-km radii of these sites, laying the groundwork for subsequent analysis. To quantify biodiversity risk, we used the STARt index to assess the overall threat level to species within 50 km of each operational site. The results indicate that the species threat level at JA's operational sites is lower than the national average, suggesting a low impact of existing production activities on endangered species.

Furthermore, we screened and evaluated the impact and dependency factors related to our business activities using the ENCORE database recommended by TNFD. Combined with desktop research, we determined that the primary environmental impacts of our production processes include noise pollution and the emission of soil and water pollutants. Although certain manufacturing activities (such as the production of aluminium frames, electronic pastes, silicone, and encapsulant films) may have a higher impact, their share of the overall business is relatively small. Therefore, the overall impact of JA's production processes on natural factors is considered low.

For further details, please refer to the *2024 JA Taskforce on Nature-related Financial Disclosures (TNFD) Report*.

¹IBAT: Integrated Biodiversity Assessment Tool, <https://www.ibat-alliance.org/>

²BIA: Biodiversity Impact Assessment Tool, <https://Bia.hinature.cn>



Responding to Nature-Related Risks

To effectively respond to nature-related risks and seize opportunities, we prioritize actions that avoid or reduce negative impacts on nature, rather than relying on subsequent compensation. The Company follows the SBTN AR3T framework, adopting an "Avoid—Reduce—Restore—Transform" pathway to systematically formulate and implement nature-related management measures.

Avoid

Formulate the *Biodiversity Policy*, making a biodiversity commitment and a zero-deforestation commitment, and actively pursue a net-positive impact on the natural environment from production and operations, providing institutional constraints for site production and power station development.

Incorporate nature-related factors into factory site selection and power station development to avoid conducting production and construction activities in environmentally sensitive areas, high-biodiversity areas, or critical ecological zones.

Assemble a professional team to conduct comprehensive and in-depth environmental impact assessments for all projects, systematically identifying potential biodiversity impacts through scientific evaluation methods and rigorous procedures, and formulating targeted conservation measures accordingly.

Actively engage in community communication and extensive consultation based on environmental impact assessment conclusions and stakeholder feedback.

The Company strengthens its product lifecycle stewardship, has formulated the *Circular Economy Strategy*, enhances the research and development of eco-friendly products, recycles and reuses modules, and actively uses circular and recycled materials.

Reduce

Prioritise the use of environmentally friendly construction materials and processes, strictly control pollutant emissions during the construction phase, and avoid damage to surrounding biological habitats.

The Company strengthens the management of energy and water consumption and waste emissions, continuously advances the development of its environmental management system, and promotes ISO 14001 certification for its manufacturing bases.

Environmental stewardship performance is incorporated into the assessment system, with recognition given to outstanding individuals and teams.

Restore & Regenerate

Regular monitoring and assessment are conducted around manufacturing bases and power plants, and ecological restoration work is carried out as planned after project construction is completed.

Ensure that all waste is discharged in a reasonable and compliant manner.

The long-term impacts of projects on biodiversity are continuously tracked and monitored, and conservation measures are promptly optimised based on actual monitoring results.

Transformation

The Company actively practises the "Together Towards Tomorrow" responsible supply chain strategy to build a sustainable supply chain.

Through strict management of the entire process, the Company ensures that its operational activities do not have a negative impact on biodiversity, achieving a harmonious coexistence between corporate development and ecological protection.

We actively participate in natural resource protection activities, enhance communication with stakeholders, establish collaborations with international nature conservation organizations, and contribute to global biodiversity conservation efforts.



Green Office and Project Investment

JA continuously promotes green culture, advocating for the environmental concept of green offices and a low-carbon lifestyle, and conveys green principles to employees through environmental activities, training, and other measures.



Case study: Gaoyou Company Regulates Air Conditioner Use in Office Areas

Regulations stipulate that in summer, the cooling temperature for air conditioners in all department offices must not be set below 26°C, and in winter, the heating temperature must not exceed 26°C. The air conditioners must be turned off during non-working hours. This measure reduces energy waste and lowers carbon emissions by regulating air conditioner use in office areas.

Case study: Hefei Manufacturing Base's "Clean Plate" Week

To promote the environmental concept of reducing carbon emissions and waste in daily life, the Hefei Manufacturing Base launched a week-long "Clean Plate" campaign. During the event, approximately 240 kg of kitchen waste was reduced, equivalent to saving 156 kg of food and reducing carbon emissions by about 600 kg.

While fostering an internal green culture, JA also deeply integrates the concept of sustainable development into the entire project investment process, systematically considering ESG factors at key stages such as preliminary project assessment, mid-term project approval review, and post-operational evaluation to ensure that investment decisions comply with green and low-carbon development requirements. From the site selection stage, the Company assesses project impacts on the local ecological environment, water resource usage, and community impact, conducting third-party due diligence when necessary. In feasibility studies and investment decisions, criteria such as green electricity use and carbon emissions levels are included in the review standards to ensure high alignment with sustainable development goals. After a project is completed, its technical, economic, and environmental performance are continuously tracked to promote green upgrades and create exemplary models of sustainable development projects.

Case study: Green Design and Operation at the Ordos Manufacturing Base

As a new manufacturing base, the Ordos Manufacturing Base fully considered green construction requirements during its development, in accordance with the *General Principles for Green Factory Assessment*. The base makes extensive use of natural light to reduce lighting energy consumption, and its landscaping, site layout, and energy-saving facilities all meet the design requirements for a "green factory".

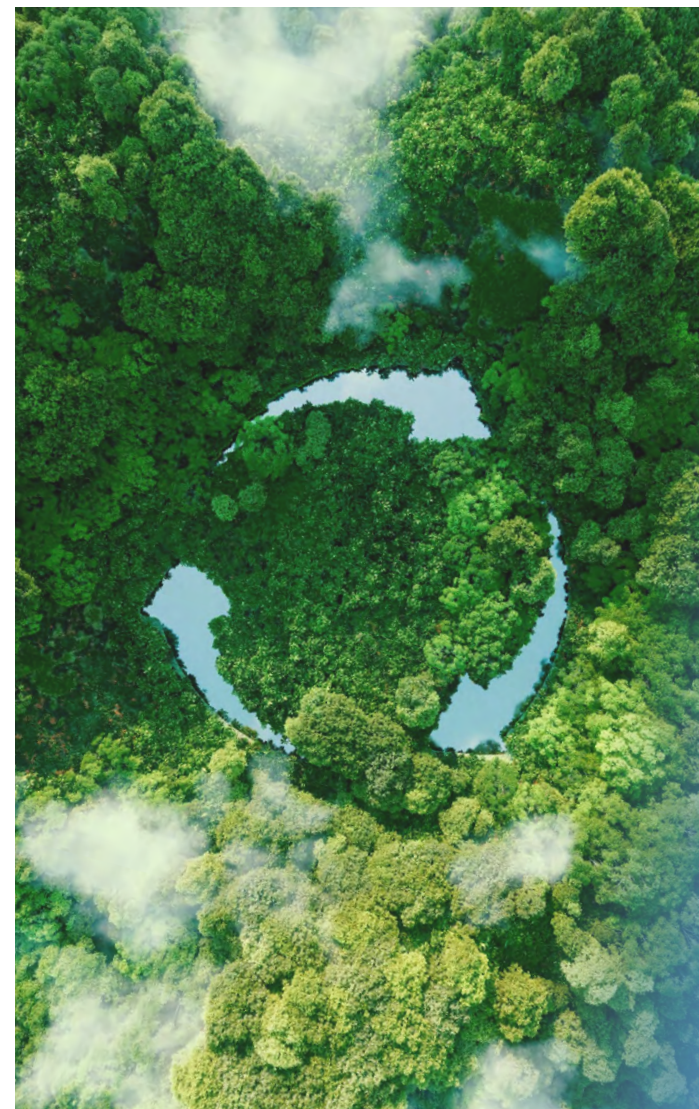
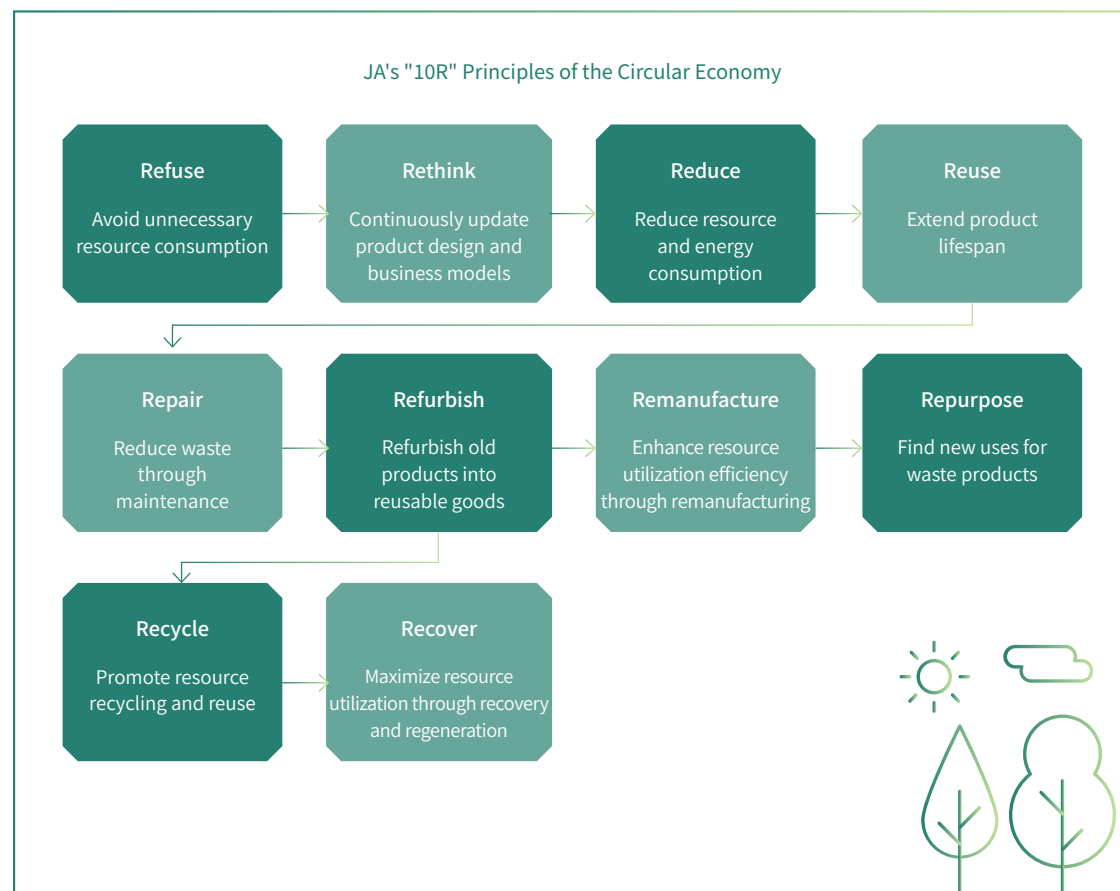


Natural Lighting Design of the Office Building at the Ordos Manufacturing Base



Creating a Circular Economy

Guided by the "10R" principles of the circular economy, JA adheres to the core concepts of "Reduce, Reuse, and Recycle" and deepens the implementation of its *Circular Economy Strategy*. We have built a systematic management policy around the entire product lifecycle, incorporating green design, clean production, packaging logistics, and the compliant recycling of waste electrical and electronic equipment into our systemic governance. By leveraging green process innovation and supply chain collaboration, the Company is committed to maximizing resource utilization efficiency, actively seizing circular economy opportunities while reducing its environmental burden.



Circular Economy Targets and Initiatives

JA has systematically assessed the environmental impact of its products throughout their lifecycle, from design and material selection to production, manufacturing, packaging, transport, use, and recycling. The Company has formulated and regularly updates corresponding optimization pathways, quantitative indicators, and targets for different stages and product types.

JA's Circular Economy Targets

2028



2030



2050

Reduce silver paste consumption per watt for n-type cells by 51% compared with 2020. Reduce consumption per watt of module auxiliary materials, including frames and encapsulant films, by 30% compared with 2020. Optimize encapsulation structures to enhance module durability.

Reduce thickness of n-type silicon wafers by 8% compared with 2025. Maintain the proportion of recycled polysilicon feedstock used broadly in line with the 2025 level and no less than 40%.

Support sustainable investment and financing, with 100% of mainstream suppliers achieving sustainability-related certifications.

Establish a diverse, equitable and inclusive management system and create full life-cycle green products.

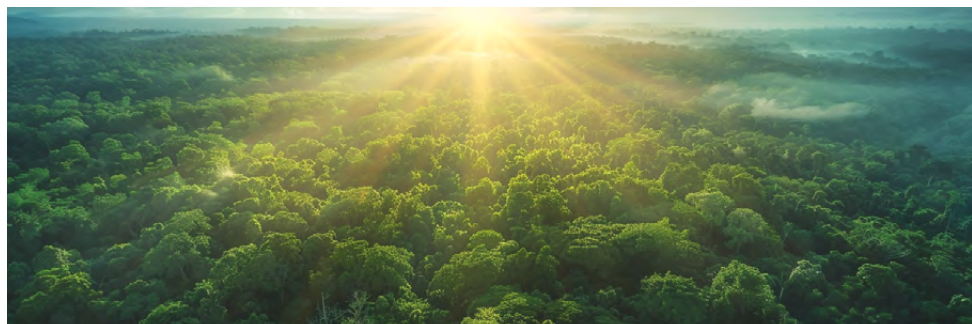
Reduce total scope 1 and scope 2 GHG emissions by 42% from a 2023 base year.

Preliminarily form production and circulation system for green, low-carbon, and circular development.

Achieve net-zero GHG emissions (scopes 1, 2 and 3).

Become a global leader in sustainable development.

2025 Target	2025 Progress
Reduce the thickness of n-type silicon wafers by 10% compared with 2020.	The thickness of n-type silicon wafers has been reduced by more than 25% compared with 2020.
Reduce silver paste consumption per watt for n-type cells by 40% compared with 2020.	Silver paste consumption per watt for n-type cells has been reduced by more than 45% compared with 2020.
Reduce frame consumption per watt among module auxiliary materials by 20% compared with 2020.	Frame consumption per watt among module auxiliary materials has been reduced by more than 30% compared with 2020.
Reduce encapsulant film consumption per watt by 20% compared with 2020.	Encapsulant film consumption per watt has been reduced by more than 25% compared with 2020.
Maintain the proportion of recycled polysilicon feedstock at a level broadly comparable to 2020, and at no less than 40%.	The proportion of recycled polysilicon feedstock has reached more than 43%.



Creating a Circular Economy

Key Stages	Actions and Achievements					
Design Stage	Design for recyclability: Focus on product recyclability and reusability by adopting design solutions that facilitate disassembly and recycling. Selection of environmentally friendly materials: Prioritize environmentally friendly and low-carbon raw material suppliers, strengthen supplier sustainability assessment and management, and promote the circular use of raw materials. Application of green auxiliary materials: Use green auxiliary materials such as lead-free solder strips, alcohol-free silicone, and low-acid adhesive film, and select water-based fluxes to significantly reduce alcohol emissions. Low-carbon technology development: Apply silicon materials with a low carbon footprint and develop recycling technologies for waste silicon wafers and cells. In 2025, through optimizing the performance of aluminium frame materials, the aluminium consumption per module has been reduced by over 10%, which can save more than 450 tonnes of primary aluminium for every 1 GW of modules produced.					
Manufacturing and Production	Process improvements: Increase the proportion of granular silicon used through measures such as thinner adhesive films, using non-aluminium frames, and apply alcohol-free sealing adhesives. Adopt steel frames to reduce carbon emissions compared to aluminium frames. Resource recovery: Implement resource recovery projects for silicon rod offcuts, argon gas and other materials. Energy saving and consumption reduction: In the slicing process, the use of finer diamond wires and advanced thin wafer cutting technology significantly increases silicon wafer output for the same energy consumption, reducing carbon emissions per wafer. Material savings: In the cell production process, silver paste consumption has been reduced by more than 45% compared with 2020.					
Packaging	Reducing single-use materials: Optimizing cross-strapping methods and eliminating non-essential fillers and edge protectors; complete verification for removing wooden edge protectors in domestic shipments and established management standards for the recycling and reuse of old packaging materials. Enhancing packaging efficiency: The loading capacity of a single silicon wafer box has been increased by 50%; soldering ribbons and encapsulation films are packaged in large rolls, reducing the frequency of changes and consumption of packaging spools. Substitution with green materials: The outer packaging for encapsulation films is gradually transitioning from single-use cardboard boxes to recyclable packaging. Moulded pallets made from 100% natural fibres such as bamboo, wood, and straw, pressed with eco-friendly adhesives, are used to replace traditional solid wood pallets. Packaging recycling: Comprehensively promote the recycling of packaging materials. In 2025, raw material film turnover boxes were reused over 296,400 times, wire boxes were reused over 383,900 times, wire box pallets were reused over 19,600 times, battery boxes were reused over 2.07 million times, and battery pallets were reused over 80,000 times.					
Warehousing and Logistics	Smart warehouses: Develop green and intelligent automated warehouses to facilitate real-time analysis of outbound shipments, storage, and inventory information, and to promote intelligent logistics management. Clean Transport: <table><tr><td>Continue to advance the "oil-to-electricity" conversion project for forklifts in intra-site transport and explore the use of clean energy sources such as biomass fuel and methanol in logistics.</td><td>Use enclosed container transport to prevent dust pollution from modules, in line with the green transportation attributes of the products.</td><td>Through electrified rail transport, 12,996 tonnes of solar modules were transported cross-border over an average distance of 800 km; leveraging the low-carbon advantages of rail transport, an annual carbon reduction of over 940 tonnes was achieved, representing a reduction rate of 72%.</td></tr></table>			Continue to advance the "oil-to-electricity" conversion project for forklifts in intra-site transport and explore the use of clean energy sources such as biomass fuel and methanol in logistics.	Use enclosed container transport to prevent dust pollution from modules, in line with the green transportation attributes of the products.	Through electrified rail transport, 12,996 tonnes of solar modules were transported cross-border over an average distance of 800 km; leveraging the low-carbon advantages of rail transport, an annual carbon reduction of over 940 tonnes was achieved, representing a reduction rate of 72%.
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Use and Recycling	Collaborative research: Actively cooperate with scientific and academic institutions and undertaking several national-level recycling research projects to ensure that products can be effectively recycled at the end of their lifespan. Recycling and tracking: Establish a full-process waste tracking mechanism and entrusting authoritative organizations such as PV CYCLE to carry out photovoltaic module recycling.					

Recycling of Electronic Waste

JA places great importance on the end-of-life management of its product lifecycle, strictly adhering to the EU *WEEE Directive* (2012/19/EU) and national laws and regulations, and is committed to reducing its environmental footprint and promoting resource recycling by building a comprehensive recycling system for waste electrical and electronic equipment (WEEE).

Full-Process Waste Tracking Mechanism

The Company has established a standardised process for handling electronic waste: starting from a damage notification or recycling request, it implements full-process management for each recycling transaction, including country verification, quantity confirmation, partner coordination, and document archiving, and closes the loop with an official certificate from an authorised recycling partner, ensuring full traceability and meeting audit and compliance requirements.

Downstream Recycler Access Management and Verification

To control environmental risk, JA implements a strict access and management mechanism for downstream recyclers. We commit to collaborating only with recycling partners authorised under the EU WEEE Directive and holding the necessary national statutory permits. Through a verification mechanism for official recycling certificates, we ensure that all waste modules are processed in facilities that meet environmental and safety standards.

Globalization of Recycling Plans and Partnerships

JA actively carries out product recycling and reuse projects by joining producer responsibility organizations (PROs) and collaborating with authorised local recyclers. We partner with industry-leading organizations such as PV CYCLE and Soren in countries including Austria, Germany, the United Kingdom, and France to implement recycling schemes that comply with local regulations.

Regular Response Mechanism and Process Optimization

The Company has formulated an action plan to enhance recycling response speed and coverage. We focus on strengthening internal process development, clarifying standardized steps from initiating a recycling request and identifying a PRO to coordinating logistics, ensuring that a compliant and efficient solution can be provided whenever a recycling need arises, thereby guaranteeing steady growth in recycling scale.

Compliance Requirements and Quantitative Targets

The Company has set clear quantitative management targets based on the EU *WEEE Directive*:

Collection Targets: Anchored to the statutory objectives set by the EU (e.g., 65% of the average weight placed on the market in the preceding three years, or 85% of the total waste generated).

Processing Efficiency: For large equipment, including photovoltaic modules, the strict dual standard of 85% recycling rate and 80% re-use rate is applied to maximize environmental benefits.

Customer Empowerment and Collaboration

The Company actively encourages customers and logistics partners to participate in the photovoltaic module recycling process through clear communication mechanisms, standardized recycling application forms, detailed packaging guidelines, and coordination of collection or delivery arrangements. Additionally, the Company provides relevant operational guides and instructional materials to support all parties in the proper handling and compliant recycling of end-of-life photovoltaic modules.

In 2025,



Total weight of WEEE collected through recycling programmes: **5,566.25** metric tonnes.¹

¹The quantity of waste photovoltaic modules actually collected and processed by JA in Italy, Germany, the United Kingdom, and Belgium in 2025. Data source: PV Cycle.

Chapter 3

Social Chapter

JA adheres to a people-centric development philosophy, deeply integrating employee rights protection, talent cultivation, and occupational health and safety management into its operational system, thereby strengthening its development foundation through the nurturing of individual value. At the same time, it leverages its leading role as a core enterprise in the industrial chain to promote synergistic industry development, continuously enhances social well-being through diverse social practices, and consistently solidifies the social foundation for the Company's long-term growth.

Material Topics Covered in This Chapter ▼

Human Capital Development	1
Occupational Health and Safety	2
Community Impact and Development	3

SDGs Addressed in This Chapter ▼



Protecting Employee Rights and Interests

Employment Management

JA strictly abides by laws and regulations such as the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, and the *Employment Promotion Law of the People's Republic of China*. It actively responds to international standards including the *Universal Declaration of Human Rights*, *International Labor Organization Conventions*, and the *United Nations Guiding Principles on Business and Human Rights*, valuing and protecting the legitimate rights and interests of all employees.

The Company has formulated a series of management systems, including the *Recruitment Management System* and the *Code of Conduct*, which explicitly prohibit any form of discrimination based on race, ethnicity, religious belief, gender, age, sexual orientation, or other factors in all aspects of recruitment and employment; strictly forbid the employment of child labor, forced labor, and any form of workplace harassment; adhere to the principle of equal pay for equal work and actively eliminate the gender pay gap; and safeguard employees' basic remuneration, benefits, and occupational health and safety, dedicating itself to creating a fair, safe, and sustainable working environment for all staff. We solemnly pledge to avoid or minimise unnecessary overtime and excessive working hours, and we commit to equal pay for men and women for work of equal value, ensuring there is no gender discrimination in job postings, salary setting, and the recruitment process.

Simultaneously, the Company regards diversity, equity, and inclusion (DEI) as a crucial component of its overall corporate strategy. We have formulated the *Diversity, Equity, and Inclusion (DEI) Policy*, and the Board of Directors and senior management level are committed to fully integrating the DEI policy into strategic decision-making and daily operations, ensuring that DEI principles are comprehensively implemented across the entire group through continuous optimisation of policies and measures. In addition, in 2025, JA actively participated in the "Gender Equality Learning Initiative" launched by the United Nations Global Compact (UNGC), engaging in in-depth initiatives focused on core topics such as gender equality policies, fostering a culture of inclusion in the workplace, and developing women's leadership. These efforts further advanced the implementation of values of diversity, equality, and inclusion within the company.

During the reporting period, JA had a total of 25,260 employees (including outsourced workers, agency workers, and part-time employees). There were 17,884 male employees and 7,376 female employees.

Building a Diverse Talent Pool



The Company recruits outstanding talent from diverse countries, cultures, and backgrounds, fully respects regional cultural differences, and integrates DEI principles throughout the entire process of talent pipeline development.

During the reporting period, the Company hired 1,292 overseas employees and 819 employees from ethnic minorities; the local hiring rate for senior executives reached 93%.

Caring for Vulnerable Groups



The Company places great importance on employment security for people with disabilities, strictly adheres to relevant national laws and regulations, and actively hires employees with disabilities based on actual job requirements, providing them with equal employment opportunities and suitable working conditions.

During the reporting period, the Company hired 66 people with disabilities.

Supporting the Development of Female Employees



The Company has officially signed the UN Women's *Women's Empowerment Principles*, effectively enhancing the level of protection for the rights and interests of female employees.

During the reporting period, female employees in management roles within revenue-generating departments accounted for 27.48% of all such managers; female employees in STEM-related positions accounted for 18.42% of the total.

Labor and Human Rights

JA strictly complies with international standards, including the *Universal Declaration of Human Rights*, the *International Bill of Human Rights*, and the *UN Guiding Principles on Business and Human Rights*, as well as the laws and regulations of the locations where it operates. The Company has formulated and implemented the *Human Rights Policy*, which clearly stipulates its provisions for labor rights and human rights protection and requires all business partners and suppliers to adhere to this policy. In 2025, JA had no illegal incidents such as employment discrimination, harassment, child labor, or forced labor. The JA Beijing headquarter, Yangzhou Manufacturing Base, and Fengxian Manufacturing Base have obtained SA8000 Social Accountability Management System certification.

Key Highlights of the Human Rights Policy

Prohibition of forced labor and child labor

Non-discrimination principle

Equal employment opportunities and working conditions

Occupational health and safety

Respect for freedom of association and collective bargaining

Respecting the rights of local and indigenous communities

Climate and environmental justice



JA conducts human rights risk screening and assessment for its own operations and supply chain, focusing on core areas such as the use of child labor, equal employment, occupational health and safety, freedom of association, and forced labor, and formulates targeted risk control measures. In 2025, the Yangzhou, Fengxian, and Yiwu Manufacturing Bases carried out human rights risk assessment work, identifying potential risks around key topics including the prohibition of forced labor, elimination of child labor, and guaranteeing equal employment. The assessment results revealed no significant human rights risks.

Content of Human Rights Risk Assessment	
Prohibition of forced labor, modern slavery, human trafficking	Prohibition of using child labor
Youth labor protection	Equality, non-discrimination, diversity, and inclusion
Anti-harassment, anti-intimidation, and anti-exploitation	Equal work, pay, and opportunities for women
Freedom of association and collective bargaining	Decent wages, benefits, and working hours
Privacy (including digital rights)	Health and safety
Access to grievance mechanisms and remedy	



Employee Communication and Grievances

Employee Communication

JA is committed to building an open, transparent, and democratic communication mechanism, listening to and promptly responding to employee opinions through diverse channels such as suggestion boxes, hotlines, and forums. During the reporting period, the Company achieved full coverage of online and offline employee communication, with a 100% feedback and processing rate for employee opinions.

The Company has formulated a series of collective agreement documents, including the *Collective Agreement*, the *Collective Agreement on the Protection of the Rights and Interests of Female Employees*, the *Collective Wage Bargaining Agreement*, and the *Special Collective Agreement on Labor Safety and Health*. These agreements are updated annually to ensure that employees' rights are fully protected and their demands are effectively addressed. Concurrently, all of the Company's bases have established trade union committees, and the trade unions regularly hold employee union congresses to ensure that employee representatives participate in corporate governance through institutionalised channels.

Key Performance



In 2025, JA

Percentage of employees¹
covered by Trade Union

100%

Percentage of employees² covered by
the *Collective Agreement*

100%

The Company has established an employee satisfaction survey mechanism to systematically collect and analyse employee feedback, continuously monitoring organisational atmosphere and management effectiveness. In 2025, the JA Manufacturing Center and the Intelligent Equipment Business Division organised an employee satisfaction survey, achieving an average comprehensive satisfaction score of 92.18, which is a relatively high level. Based on the survey results, the Company is focusing on six key areas: optimising the welfare and benefits system, improving compensation and incentive mechanisms, building career development pathways, enhancing the work environment and equipment, and caring for employees' physical and mental health. These efforts aim to continuously improve the employee experience and organisational cohesion, achieving a synergistic improvement in both employee satisfaction and organisational performance.

¹Employees refer to domestic full-time employees.

²Employees refer to domestic full-time employees.

Employee Grievances

The trade union has established a diversified employee communication and feedback mechanism, facilitating channels for expressing employee demands through offline suggestion boxes and employee union congresses, ensuring that employee opinions are promptly conveyed and addressed.

Following major events, the trade union promptly gathers employee suggestions through online channels and extensively collects opinions via offline surveys and other methods to continuously optimise employee care and service support, effectively safeguarding the legitimate rights and interests of employees and fostering harmonious and stable labor relations. Employees are allowed to submit grievance materials through a designated email address, with relevant departments required to respond within 10 working days. Furthermore, the Company fully protects the privacy and security of complainants, strictly limiting access to grievance information to ensure efficient dispute resolution and normalised democratic governance. During the reporting period, there were no incidents of information or content leakage related to complainants.



Employee Training and Development

Talent Attraction

JA places great importance on talent attraction and recruitment, continuously introducing and building a reserve of talent in key areas through diverse channels to better meet the Company's future development needs. In 2025, the Company deepened its strategic cooperation with key universities for campus recruitment, attracting outstanding graduates through in-depth interactive events such as dedicated information sessions, two-way recruitment fairs, and campus open days. To support its globalisation strategy, the Company systematically promotes its employer brand overseas and utilises digital platforms for precise communication and recruitment to attract top international talent. During the reporting period, the total number of new employees was 3,232.



Talent Cultivation

JA regards talent cultivation as the core engine of its development, having established a formal talent echelon development strategy. In conjunction with job characteristics and the Company's development strategy, it has created a multi-dimensional talent cultivation system for employees at all levels, promoting orderly horizontal and vertical talent development.



Leadership Development Programme

- Managerial Role Cognition and Leadership Training Camp

In 2025, the Company conducted the "Role Cognition and Leadership Training Camp" for the management teams of the manufacturing and R&D systems. The camp focused on defining managerial roles and enhancing capabilities, aiming to support the growth of managers and clarify pathways and methods for management transformation. This provides strong support for advancing the Company's transformation, enhancing manufacturing and R&D competitiveness, and ensuring long-term steady growth.



Specialised Post Development Programme

- Infrastructure Engineering Management Project Training

In 2025, to systematically enhance participants' comprehensive abilities in key project process control, risk warning and response, and cross-departmental collaboration, the Company provided engineering project management training for key personnel from the Infrastructure Engineering Center, the Audit and Supervision Center, and the Dongtai Site. The training aimed to shift the team's focus from a technical orientation to a management one, from post-event handling to pre-event prevention, and to reinforce a work philosophy of collaboration and mutual success.

Graduate Development Programme



- Co-construction of the "Intelligent Optoelectronics and Smart Manufacturing" Industrial Academy

In 2025, JA partnered with Yangzhou Vocational and Technical University to co-establish the "Intelligent Optoelectronics and Smart Manufacturing" Industrial Academy, creating a collaborative university-enterprise training model. Within the Academy, the Company set up a "Miniature Photovoltaic Module Processing Teaching Production Line", bringing active factory equipment onto campus. For teaching implementation, Company engineers serve as resident instructors, and We have adopted a dual-qualification training system of "Academic Diplomas Plus Vocational Skill Certifications". The first cohort of 20 graduates from the Innovation Class interned at JA after completing their courses. Among them, 12 were directly hired for pilot line R&D positions due to their excellent performance in practical skills assessments, achieving a seamless transition from "Campus Learning to Corporate Practice to Employment". This project not only supplies the Company with high-quality technical talent with strong practical skills but also establishes a talent cultivation pathway for the photovoltaic industry, injecting new momentum into the industry's sustainable development of the sector.



Digital Transformation Development Programme

- Dify Intelligent Agent Development Practical Training

In 2025, JA conducted Dify intelligent agent development practical training, using a combination of self-study and offline sessions, covering all 36 employees of the Intelligent Manufacturing Research Institute. The training content included modern ai agents and related concepts, the entire process of agent development based on the Dify platform, and the practical application of LLMs, knowledge bases, and tools. Through this training, AI product managers can now build AI agents based on business needs, reducing direct reliance on professional developers and providing a technical foundation for the future development of the Company's AI applications.

- EHS Digital Management Platform Training

In 2025, JA conducted training on the EHS Digital Management Platform, covering employees at all domestic manufacturing bases throughout the entire process of system design, testing, and launch. The training adopted a phased, customised strategy, inviting key EHS personnel from each base to participate in the blueprint design. After the launch, a five-day on-site training session was held, supplemented by 24-hour online support. The training not only enhanced employees' digital skills but also optimised business processes, enabling electronic records management. Through this project, the platform saved approximately 1,255 person-days of manual filing. With 450,000 data entries brought online, the system facilitated the electronic management of vast data, saving approximately 1,620 person-days in operational time. The training and system application have effectively increased overall participation, information transparency, and closed-loop responsibility management, advancing the Company's EHS management towards greater precision, standardisation, and efficiency.

General Skills Training



- Xingtai Manufacturing Base General Skills Diversified Training

In 2025, JA Xingtai Manufacturing Base conducted a series of general skills training sessions for employees. These covered multiple topics, including *National Security and Environmental Protection Laws and Regulations Training*, *Headquarters IPD Fundamentals Training*, *Cross-departmental Collaboration for Supply Chain Success Training*, and *Learning from Fault Tolerance and Correction Mechanisms*. Total employee participation reached 636 person-times, effectively enhancing their comprehensive qualities and job capabilities.

Cultural Education



- Building Bridges with Multicultural Education

JA conducts diverse employee cultural education programmes to systematically enhance employees' awareness and respect for different cultural backgrounds, customs, and perspectives, and to strengthen cross-cultural communication skills. The Company not only organises pre-departure training for expatriate staff but also provides team-building opportunities for both Chinese and international employees to promote exchange and integration among staff from different cultural backgrounds. Furthermore, all employees can log into the "Yidian Zhishi" platform to independently study relevant courses, such as the presentation on *How to Break Down Cross-cultural Communication Barriers Between Domestic and Overseas Employees*, further fostering an inclusive and open corporate culture.

Compensation and Benefits

Compensation and Performance

JA continuously improves its internal compensation management system, committed to providing employees with industry-competitive remuneration packages. The Company uses a compensation structure that combines "fixed salary + performance-based variable pay". It regularly conducts external compensation benchmarking to analyse salary levels, adjustment frequencies, and magnitudes within the industry. This data is combined with internal factors such as the current compensation for each position, employee performance, and capabilities, to scientifically and reasonably adjust the salary grades and ranges for all positions, ensuring a balance between market competitiveness and internal equity.

Guided by the principles of strategic orientation, value creation, and continuous improvement, the Company has established a scientific, closed-loop performance management system. We have formulated and implemented the *Organisational Performance Management System* and the *Employee Performance Management System* to define management methods and processes for organisational and employee performance, promoting effective synergy between individual, organisational, and corporate strategic objectives. The Company also implements a full-cycle performance management mechanism of "Annual Planning, Process Review, and Regular Evaluation". This year, the coverage rate of regular performance assessments for full-time employees reached 100%, and the results serve as a key basis for individual employee development, career planning, and the selection of role models and outstanding individuals.

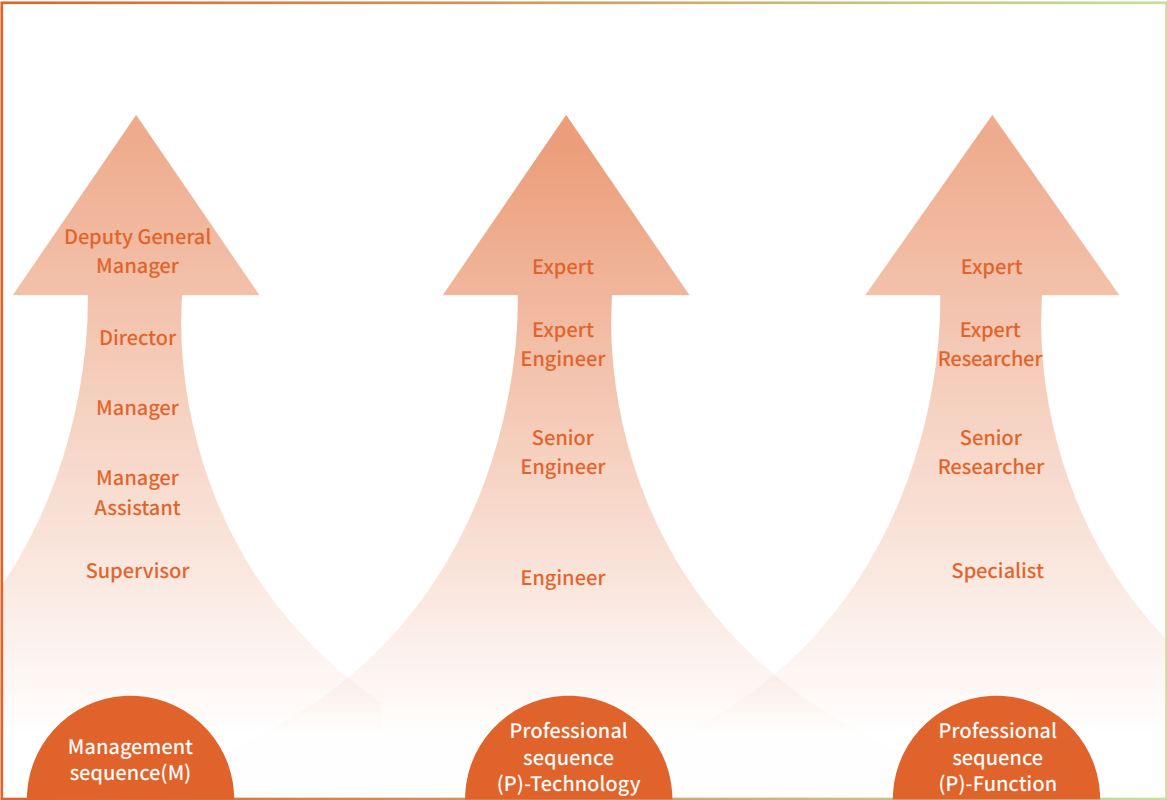
JA Performance Management System	
Performance Assessment Frequency	Conducting annual or routine performance assessments for all employees
Performance Management Method	Adopting a diversified performance management approach, which integrates management by objectives, 360-degree feedback, and project management to conduct comprehensive assessments of individual and team performance Utilising agile dialogues for regular performance communication and coaching
Performance Management Process	Implementing a full-cycle performance management of "annual planning, process review, and regular evaluation" Conducting regular performance reviews and coaching to help employees identify gaps, allocate resources, and improve in a timely manner Following the performance assessment, feedback is provided to employees through performance interviews, and improvement and development plans are jointly formulated



Promotion and Incentives

JA continuously enhances its talent promotion and incentive mechanisms. By building clear career development paths and a diversified incentive system, it stimulates employee potential and organisational vitality, achieving a virtuous cycle of employee growth and corporate development.

In terms of career promotion, the Company provides each employee with a comprehensive and personalised system for advancement. We have established three career promotion tracks—management, technical, and functional—based on job requirements and career goals, encouraging employees to realise their value in different fields. The Company has also created a "job competency assessment model" to systematically evaluate employees across multiple dimensions, including management, professional, execution, and innovation capabilities. This provides a scientific basis for job adjustments and promotions, ensuring a good match between talent and roles and supporting continuous employee growth.



Regarding talent incentives, the Company continues to optimise its employee incentive system. It has established a multi-faceted incentive structure guided by "Three Incentive Mechanisms" and supported by "Four Incentive Modules", complemented by special short, medium, and long-term incentive projects. In 2025, the Company launched an activity to select role models and outstanding individuals, using their example to guide the steady achievement of business objectives. Key project incentives were implemented for high-performing teams, allowing significant contributors to stand out. The Company also adopted a classified approach, precisely implementing special incentive plans to fully activate the organisation's internal drive, helping to achieve business goals and continuously enhance organisational effectiveness.



Three Incentive Mechanisms

- Talent growth and development
- Talent achievement and value realization
- Talent respect and recognition



Four Incentive Modules

- Remuneration and equity incentives
- Patent and technology incentives
- Training and promotion incentives
- Other incentives: model evaluation, skill evaluation, etc.

To further improve the Company's corporate governance structure, promote the establishment and enhancement of its incentive and restraint mechanisms, and strengthen the sense of responsibility and mission among the management team and core staff towards achieving the Company's sustained and healthy development, the Company's implementation of the 2025 Stock Option Incentive Plan and the 2025 Employee Stock Ownership Plan was approved at the 43rd meeting of the sixth session of the Board of Directors held on 22 August 2025, and at the fourth extraordinary general meeting of 2025 held on 8 September 2025. The Company has implemented the 2025 Stock Option Incentive Plan and the 2025 Employee Stock Ownership Plan.



Benefits System

JA continuously establishes and improves its employee benefits system, effectively enhancing the happiness and sense of belonging for all employees through diverse guarantees and care initiatives. In 2025, the Company achieved full coverage of salary and benefits for all active employees. Non-remuneration benefits (including health management, employee care, and recreational activities) also reached 100% coverage. Furthermore, the Company contributes to insurance for full-time employees in accordance with the law, with a contribution rate of 100%.

JA Full-time Employee Benefits



Statutory Benefits

Five social insurances and one housing fund: medical insurance, pension insurance, unemployment insurance, work-related injury insurance, maternity insurance, and housing provident fund

Statutory holidays and paid leave: statutory public holidays, marriage leave, bereavement leave, prenatal check-up leave, maternity leave, paternity leave, parental leave, nursing leave, annual leave, etc.

Occupational health and safety: pre-employment and in-service occupational health checks, high-temperature subsidies, labor protection equipment, etc.

Other statutory benefits: overtime pay, minimum wage guarantees, etc.



Family Care Benefits

Provision of childcare facilities, breastfeeding facilities, and paid family or nursing leave in addition to parental leave.

Establishment of holiday childcare services for employees' children



Festival and Cultural Benefits

Team-building activities, employee birthday parties, exclusive women's day events, employee care and support initiatives, etc.



Physical and Mental Health Benefits

Health insurance, psychological counselling services, regular health check-ups, health lectures, sports and wellness initiatives, etc.



Key Performance

In 2025, JA

Over 5,000 employees are eligible for paid parental leave¹,

with female employees
taking an average of

18.45 weeks

and male employees
taking an average of

2.94 weeks

¹"Childcare leave" is defined as encompassing prenatal check-up leave, maternity leave, and childcare leave.

Employee Care

JA has always placed great importance on employee care. Focusing on the actual needs of its staff, the Company implements diverse employee care initiatives. These initiatives focus on employees' physical and mental well-being and help them achieve a work-life balance.

Beijing Headquarter

Hosted a 20th-anniversary themed sports season with over 200 participants, who received commemorative DIY tote bags as prizes

Invited specialists from Beijing 301 hospital to provide a half-day of free medical consultations, effectively helping employees address potential health issues

Organised a team-building event at Thaiwoo Ski Resort for over 300 employees, which effectively enhanced team cohesion and collaboration

Conducted "Summer Cool-down" and "Winter Warm-Up" employee care campaigns

Shijiazhuang Manufacturing Base

Launched the "One-Day Salary Donation for Mutual Aid" campaign, raising RMB 96,516 and assisting 1 employee in need

Conducted "Winter Warm-up" and "Summer Cool-down" campaigns

Organised cervical and breast cancer screenings for female employees and held traditional Chinese medicine health lectures

Held over 20 events, including fun sports meetings and artistic performances

Yangzhou Manufacturing Base

Operated a summer care programme for three consecutive years, providing four weeks of "8 a.m. to 5 p.m." childcare for over 30 children of young employees. The programme included diverse courses such as Party history education and intangible cultural heritage experiences, effectively addressing the challenge of summer childcare for staff.

Established a health station equipped with scales, blood pressure monitors, eye charts, and other medical equipment for self-monitoring

Provided exclusive health check-ups for female employees and organised themed activities for International Women's Day

Baotou Manufacturing Base

Regularly organised application and support activities for employees facing difficulties, assisting 5 such employees in 2025

Distributed 922 packages of mung beans and rock sugar during the "Summer Cool-down" campaign and 2,100 packages of rice, flour, and oil during the "Winter Warm-up" campaign

Held 4 first-aid training sessions on the use of high-altitude descenders and AEDs, with 180 employees participating and 160 obtaining first-aid certification

Dongtai Manufacturing Base

Held quarterly employee birthday parties

Organised the "Excellence in Manufacturing, Leading with Pride" health run to enrich the cultural and sporting life at JA

Employee Training and Development

**Hefei
Manufacturing
Base**

Organised activities such as a "Family Open Day", a billiards tournament, festival celebrations, a "Green Plate" week, a mountain clean-up hike, and screenings of patriotic films

Organised a "Summer Cooling" event, providing employees with 1,500 kg of watermelon, nearly 400 boxes of herbal tea, and heat prevention supplies such as sun hats

**Ordos
Manufacturing
Base**

Held a Mid-autumn Festival event, providing customised mooncake gift boxes to employees on duty

Organised a spring warming event, preparing 100 customised Jinmailang gift boxes for all frontline employees on duty

Invited a well-known local hospital to provide free gynaecological health clinics and held a symposium on caring for women

Established nursing rooms

Held 13 events, including fun sports days and various themed activities

Regularly holds employee birthday parties

**Xingtai
Manufacturing
Base**

Sponsored three employees' children, distributing scholarships totalling RMB 15,000

Assisted 19 employees facing hardship, distributing support funds totalling RMB 62,000

Collaborated with the Municipal People's

**Ningjin
Manufacturing
Base**

Launched the "One-Day Employee Mutual Aid Donation" campaign. In 2025, a total of 16 employees were assisted, with cumulative aid reaching RMB 64,200

Assisted 10 employees facing hardship, distributing support funds of RMB 21,000

**Qujing
Manufacturing
Base**

Regularly conducted caring activities such as festival greetings, family visits, and family open days

Assisted 4 employees facing hardship, distributing support funds of RMB 74,000

Established nursing and lactation rooms

Held events such as quarterly birthday parties, the Ethnic Unity Cultural Festival, and symposiums for ethnic minorities.

Invited a well-known local hospital to provide free gynaecological health clinics and hold symposiums on caring for women

**Fengxian
Manufacturing
Base**

Partnered with a local Grade A Class III hospital to offer public medical science lectures and provide employees with free health consultation services

Organised an intangible cultural heritage skills workshop, inviting inheritors to provide on-site instruction and allowing employees to experience the craftsmanship firsthand

Employee Training and Development



Qujing Manufacturing Base Ethnic
Unity and Progress Cultural Festival



Fengxian Manufacturing Base Medical
Science Public Lecture



Ordos Manufacturing Base Spring
Warming Event



Shijiazhuang Manufacturing Base
"Easy Summer" Sports Day



Dongtai Manufacturing Base Marathon
Event



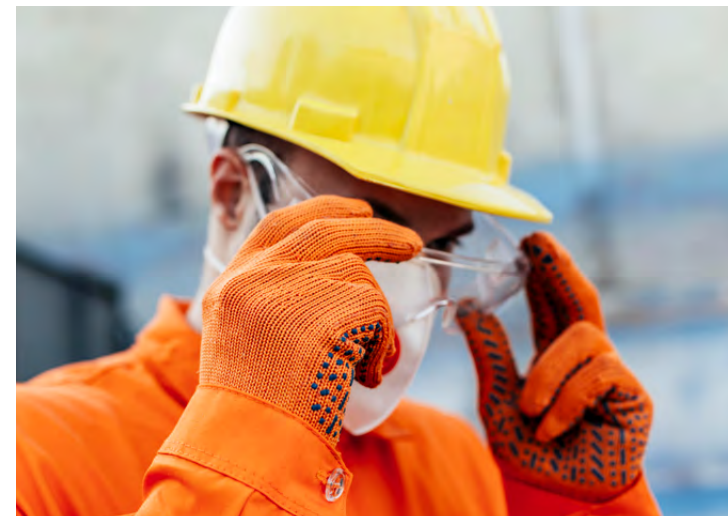
Hefei Manufacturing Base Family Open
Day

Occupational Health and Safety

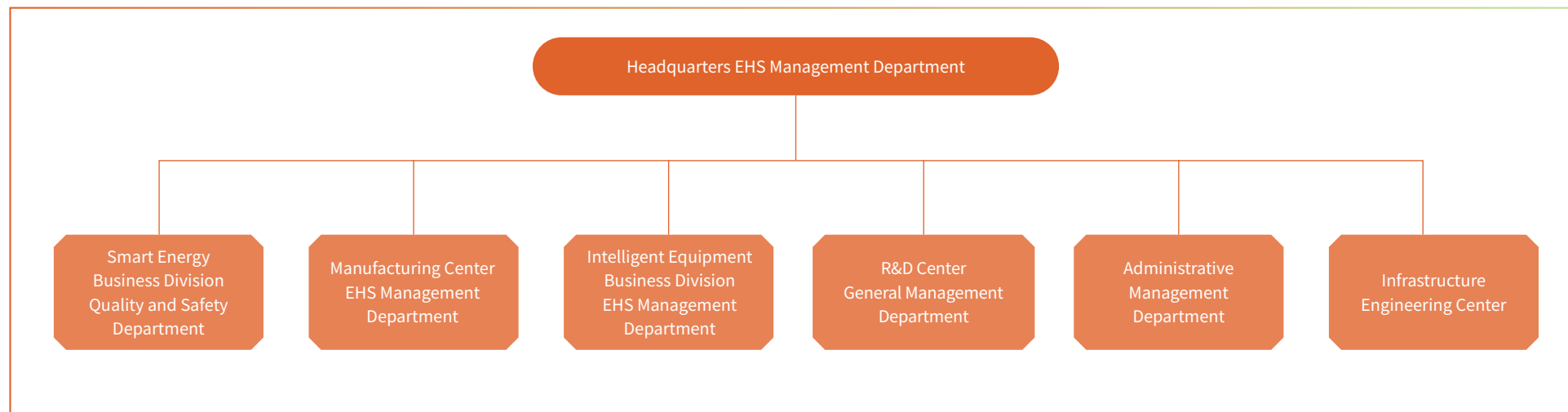
Occupational Health and Safety Management System

JA has always placed the occupational health and safety of all its employees first, and in accordance with laws and regulations such as the *Law of the PRC on the Prevention and Control of Occupational Diseases*, the *Work Safety Law of the PRC*, the *Regulations on Work-Related Injury Insurance of the PRC*, the *Fire Protection Law of the PRC*, the *Special Equipment Safety Law of the PRC*, and the *Basic Norms for Enterprise Work Safety Standardization*, the Company added or revised 42 internal management systems throughout the year, focusing on consolidating the safety responsibility system, improving the closed-loop risk management mechanism, strengthening full-process control over occupational health, and building a rigid constraint mechanism for safety red lines, thereby further providing a solid institutional guarantee for occupational health and safety management.

JA continuously improves its governance structure for work safety and occupational health. The headquarters has established a Safety Management Committee as the highest leadership and decision-making body for work safety management, which formulates long-term safety strategies, reviews significant safety management issues, and conducts research to provide policy recommendations on occupational health matters. The Safety Management Committee has an Executive Committee composed of the EHS heads from various centers (departments). This Executive Committee is responsible for the daily affairs and implementation of the Safety Management Committee's work, ensuring the effective execution of all safety management requirements.

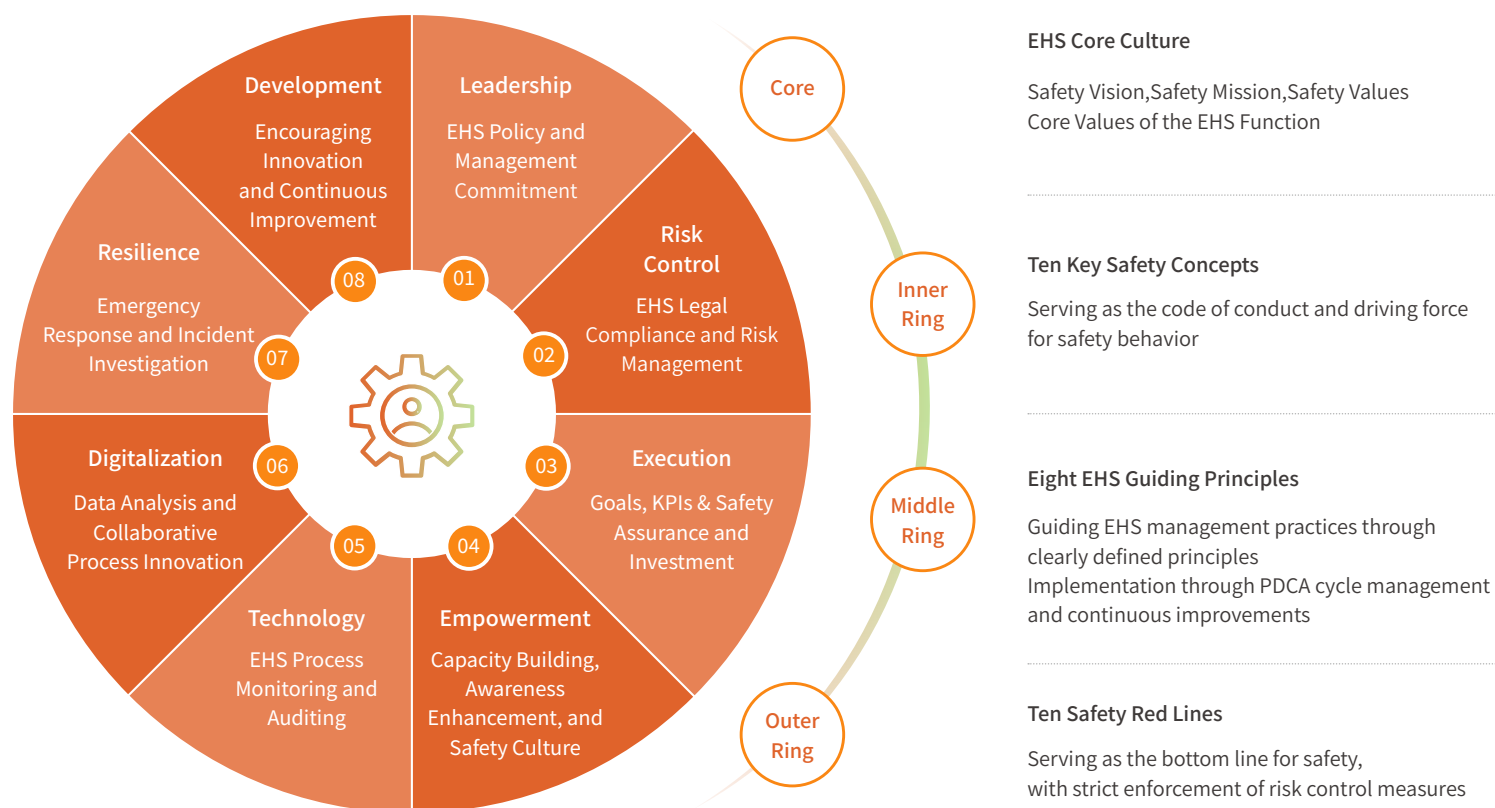


JA EHS Governance Structure



In 2025, JA continued to optimise its EHS management radar chart, implemented the ten safety concepts and eight EHS guiding principles, and prioritized the advancement of EHS digitalization and talent development. The Company strictly followed the PDCA cycle for management, enhanced its risk control capabilities, and continuously improved its resilience and stability in responding to various challenges. Building on this foundation, the Company has formulated an occupational health and safety management plan that covers prioritisation and quantitative targets to address risks. For potential or actual work-related injuries, health issues, illnesses, and accidents, the Company has established a rigorous investigation procedure that defines the requirements for the entire process—from reporting and root cause analysis to corrective and preventive actions—ensuring closed-loop management to effectively protect employee health and safety.

JA EHS Management Radar Chart



EHS Targets¹

1

Workplace accidents resulting in serious injuries or worse: 0

2

Major fires (explosions) and major equipment accidents: 0

3

Occupational diseases: 0

4

Government administrative trigger: 0

5

Lost time injury frequency rate (LTIFR): <0.2705

6

Major accident hazards: 0

7

Accountability for violations of the safety red lines: 100%

8

Rectification rate of accident hazards: 100%

9

Regular inspection rate of special equipment: 100%

10

Safety education and training implementation rate: 100%

11

Accident reporting rate: 100%

Key Performance²

In 2025, JA



The certification rate for the ISO 45001 system across all manufacturing bases is

100%

the coverage rate of work safety standardization is

100%

Number of employees diagnosed with occupational diseases:

0

Number of employee deaths from occupational diseases:

0

Lost-time Injury Frequency Rate (LTIFR)³:

0.31

Investment in occupational health:

RMB 10.07 million

¹Covers only the main material manufacturing bases.
²Covers only the main material manufacturing bases.
³Total working hours in 2025 were significantly lower than in 2024. Although the number of incidents decreased, the reduction in working hours inflated the incident rate, causing it to slightly exceed the target value.

Safety Management in Production

Safety Risk Control in Production

JA has established a comprehensive safety responsibility system for production, applying a multi-dimensional approach that encompasses risk identification, emergency management and the enhancement of safety awareness to strengthen its risk prevention and control capabilities and ensure the implementation of control measures at every level.

The Company formulated the *Procedure for Hazard Identification, Risk Assessment and Risk Control Planning*, which guides the formation of a dual prevention mechanism for hierarchical safety risk control and the investigation and governance of hidden dangers. Each manufacturing base has established a risk identification team to collect relevant information and identify hazards, using the Likelihood, Exposure, Consequence Method (LEC) and the Risk Matrix Method (LS) to scientifically assess and grade risks. Based on this, we create visual tools such as four-colour risk maps to convey risk information to employees in a timely and precise manner, ensuring they fully understand the potential risks in their workplace.

In line with the assessment results, the Company develops targeted risk control measures, including optimising process designs, providing necessary personal protective equipment for specific roles, conducting safety training to raise employee awareness and formulating emergency response plans. To ensure these measures are implemented effectively, the Company has established a continuous monitoring mechanism and consistently optimises its occupational health and safety management system through internal and external reviews, achieving closed-loop management of risk assessment and control.

JA's Safety Risk Control Process for Production



Preparation and Planning

Define Scope: Cover routine and non-routine operations

Form a Team: Involve cross-departmental professionals

Select Methods: JHA, SCL, etc.



Hazard Identification

Comprehensive Identification: Full coverage of Man-Machine-Material-Method-Environment

Determine Characteristics: Analyze accident types and consequences

Temporal Status: Consider past, present, and future



Risk Assessment

Core Methods: Risk matrix method ($R=L \times S$), LEC method

Risk Categorization: Major (red), significant (orange), moderate (yellow), low (blue)



Risk Control

Control Hierarchy:
Elimination > Substitution
> Engineering controls >
Administrative controls > PPE

Implementation and communication: Full employees training and execution



Continuous Review

Regular Review: Annual review

Dynamic Updates: Updates triggered by changes or incidents

PDCA: Closed-loop management

The Company strictly adheres to national laws, regulations and relevant standards, fully implementing the "Three Simultaneities" safety requirement in project construction, which stipulates that safety facilities must be designed, constructed and put into use concurrently with the main project. To ensure the proper design and construction of these safety facilities, the Company commissions qualified technical consulting agencies to prepare comprehensive analysis reports on production safety conditions and facilities, specialised chapters on safety facility design, and completion acceptance reports, providing a solid guarantee for the safety of its manufacturing bases. Concurrently, the Company continuously enhances the safety level of its equipment and facilities by introducing AGV trolleys, production robots and automated production lines to gradually replace manual operations, while also optimising processes and workflows to effectively reduce labor intensity and safety risks, thereby promoting a dual advancement in production safety and intelligent upgrading.

Emergency Safety Management

Emergency response capability is the final line of defence in safeguarding production safety. JA promotes unannounced drills at its manufacturing bases to directly assess their emergency rescue capabilities and the professional skills of employees, identify weaknesses and propose improvements. This helps to address shortcomings, accumulate experience and provide technical and practical support for the safe operation of the bases. In 2025, the Company's overall emergency response capability improved significantly compared to 2024.

Chemical Safety Management

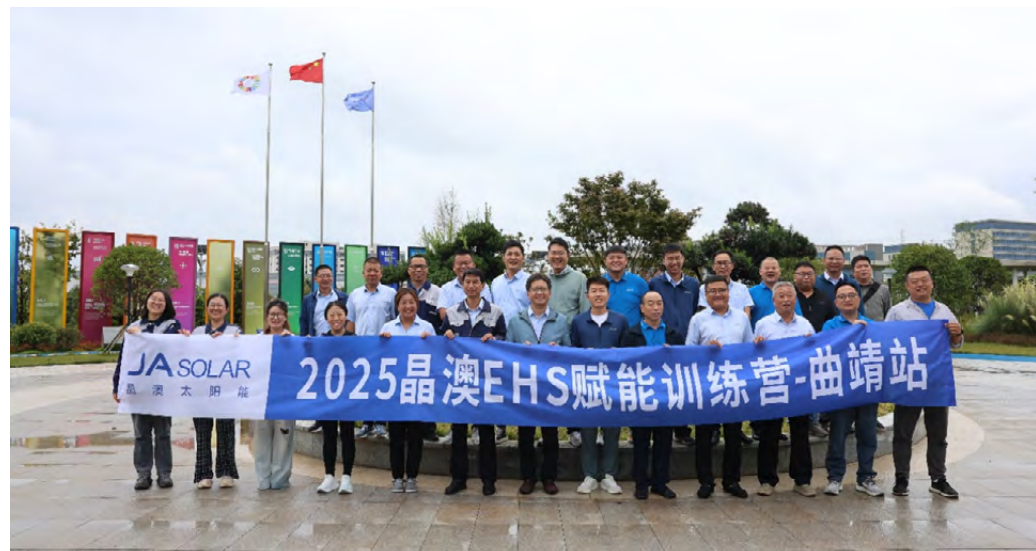
To systematically prevent safety and environmental risks throughout the entire process of chemical procurement, transport, storage, use and disposal, JA has integrated chemical safety management as a core module of its EHS management system, establishing a closed-loop, full-lifecycle management mechanism covering "Entry Assessment, Compliant Procurement, Standardised Transport, Classified Storage, Safe Use, Compliant Disposal, Emergency Response, Personnel Competency and External Collaboration". The Company places equal emphasis on source control and process management, reinforcing the rigid implementation of chemical management systems. Through multi-departmental collaborative reviews, hierarchical risk control, standardised operating procedures and a chemical emergency management mechanism, the Company ensures that its chemical management complies with national and local regulations, continuously enhancing its intrinsic safety levels and risk prevention capabilities.

Safety Training for Production

In 2025, the Company's manufacturing bases conducted a series of training sessions related to safety in production, fully stimulating the enthusiasm of all employees to participate and proactively fulfil their safety management responsibilities.

Case Study: EHS Empowerment Camp

In 2025, JA launched the "EHS Empowerment Camp"(EEC), a capacity-building project. The camp invited 24 participants, including heads of various business divisions, leaders from photovoltaic manufacturing bases and key EHS personnel. Through studying advanced domestic and international EHS management knowledge and technologies and engaging in in-depth exchange visits with outstanding enterprises, the project aims to establish an EHS peer-learning network, explore best practices and collaborations, and develop an EHS management approach with distinctive JA characteristics.



JA's 2025 EHS Empowerment Camp



Case Study: Qujing Manufacturing Base Hosts Provincial New Energy Firefighting and Rescue Technology Training and Research

On 24 September 2025, the Yunnan Provincial Fire and Rescue Department organised a new energy firefighting and rescue technology training and research event at the Qujing Manufacturing Base, with 140 personnel from 16 brigades across the province participating. The research team conducted on-site inspections and technical exchanges in the cell workshop, module workshop and the special gas station, a key fire prevention area at the base. They gained a systematic understanding of the characteristics of new energy production processes and fire risk prevention measures, strengthening government-enterprise collaboration and practical response capabilities, thereby enhancing the level of production safety at the base.

Case Study: Ordos Manufacturing Base Holds Themed Activities for Safety Month and Fire Safety Awareness Month

In June 2025, the Ordos Manufacturing Base organised a series of innovative cultural activities centered on the theme of Safety Month, promoting the extension of safety concepts from regulatory compliance to emotional identification and capacity building. Through activities such as "A Safety Letter from Home", the selection of "Safety Ambassadors Around Us" and a multi-departmental "Emergency Skills Competition", the base strengthened employee engagement and the influence of role models. The event collected 12 safety ambassador videos and 6 messages from family members, involving 458 participant-times in training for a total of 916 training hours. Following the event, the base systematically summarised the outcomes of the drills, translating practical experience into plan optimisations and standardised promotional measures, creating a virtuous cycle of "Activity Guidance, Behavioural Improvement and System Enhancement".

In November 2025, the Ordos Manufacturing Base launched a specialised capability enhancement initiative focused on the Fire Safety Awareness Month theme. Through special training and practical drills, it comprehensively improved employees' abilities in fire risk identification, emergency evacuation and initial fire suppression. Over 100 promotional brochures were distributed, and the training covered 801 individuals for a total of 1,602 training hours. After the event, a closed-loop mechanism of "Learn, Practice, and Improve Immediately" was established, organising all departments to benchmark and investigate fire hazards, thereby upgrading fire safety management from awareness-raising to capability consolidation and closed-loop hazard governance.

Case study: Ningjin Manufacturing Base Conducts Psychologically-driven Safety Training for Production

During Safety Month in 2025, the Ningjin Manufacturing Base organised a special training session on *Accidents and Their Psychological Triggers*, systematically analysing the causes of common accidents and using case studies to reveal the critical influence of psychological factors on production safety. Through innovative safety education methods such as cautionary case studies, scenario simulations and interactive sharing, the training enhanced employees' risk perception and behavioural reflection, fostering a shift in safety awareness from passive reception to active internalisation.

Occupational Health Management

Occupational Health Management Mechanism

JA strictly complies with the *Law of the People's Republic of China on the Prevention and Control of Occupational Diseases*, the *Provisions on the Supervision and Administration of Occupational Health at Work Sites*, and applicable laws and regulations in its overseas operating locations. The Company also references the International Labor Organization's (ILO) *Occupational Safety and Health Convention* to formulate a series of internal management systems, including the *Occupational Hygiene Management System*, the *Occupational Health and Safety Management Manual* and the *Occupational Health Management Procedures*, continuously refining its systematic and standardised occupational health management mechanism.

The EHS teams at the Company's headquarters and each manufacturing base conduct occupational health and safety risk identification at least once a year, systematically assessing risks and implementing hierarchical controls. Risks identified as "major risks" and "significant risks" are included in the *List of Unacceptable Risks and Control Plan*, where they are subject to strict control measures and continuous monitoring and review. With the exception of "negligible risks", all other risks require further control measures to continuously reduce occupational health and safety hazards.

Additionally, the Company and its manufacturing bases regularly monitor occupational hazard factors to maintain real-time awareness of health risk conditions in the work environment. For identified hazards, each site sets up notice boards for public disclosure and provides employees with personal protective equipment appropriate for their roles. Supporting facilities such as ventilation system, silencers and dust collectors operate concurrently to comprehensively protect employees' occupational health and safety during production operations.

The Company strictly implements an occupational health examination system, conducting standardised occupational health checks before, during and after employment. It also establishes comprehensive occupational health records for each employee, enabling full-process tracking and documentation of health management.

Case Study: Qujing Manufacturing Base Launches Occupational Disease Prevention and Control Awareness Week Activities

On 25 April 2025, the Qujing Manufacturing Base in collaboration with the Qujing Red Cross and Qujing Huadu Hospital, launched an occupational disease prevention and control awareness week. The event included mental health training and consultation sessions, first aid training lectures, and practical drills covering topics such as first aid principles, cardiopulmonary resuscitation (CPR), automated external defibrillator (AED) usage, and on-site treatment for common acute illnesses and accidental injuries. The event attracted over 100 participant-times, effectively enhancing employees' occupational health awareness and emergency response skills.



The Qujing Manufacturing Base Conducting Activities for the Occupational Disease Prevention and Control Awareness Week



Occupational Health Training

JA has established a comprehensive occupational health and safety training system. Before starting their roles, employees must undergo three-level safety education and occupational health training, and can only commence work after passing the relevant examinations. After joining, employees receive regular and ad hoc on-the-job training covering topics such as occupational health management, occupational disease prevention and heatstroke prevention. In 2025, the Company's various manufacturing bases actively carried out a series of occupational health training sessions, effectively enhancing employees' self-protection capabilities and health awareness.

Case Study: The Ordos Manufacturing Base Holds an Occupational Health Awareness Week

In April 2025, the Ordos Manufacturing Base launched an occupational health awareness week, systematically disseminating occupational health knowledge through various means including specialised training, traditional Chinese medicine clinics, knowledge quizzes, health information dissemination, questionnaire interviews, and promotional videos, thereby strengthening employees' risk identification and self-protection awareness and promoting the transition of health concepts from awareness to ingrained behaviour.

Case Study: The Ningjin Manufacturing Base Conducts a Series of Specialised Occupational Health Training Sessions

During the 2025 Occupational Health Awareness Week, the Ningjin Manufacturing Base conducted a special inspection of occupational health and safety and held an emergency medical rescue drill. The inspection focused on the front-line workshops, verifying the implementation of management measures such as the provision and standardised use of protective equipment against occupational diseases and the operational status of protective facilities; simultaneously, an emergency rescue drill was conducted for scenarios like poisoning and chemical burns caused by hazardous chemical leaks, strengthening on-site organisational coordination and emergency response capabilities and improving practical response levels for sudden occupational health incidents.

The Ningjin Manufacturing Base also conducted specialised training on occupational health and safety and promoted awareness of occupational disease prevention, with a cumulative total of 1,906 participant-times and 3,812 training hours, achieving a 100% first-attempt pass rate on tests. In line with the promotional requirements of health authorities, safety ambassadors distributed posters and information booklets, and organised employees to watch live online broadcasts on occupational health, systematically popularising knowledge on preventing and controlling occupational diseases and continuously enhancing employees' awareness of occupational health risk prevention.

Key Performance



During the reporting period, the Company:

conducted **3,853** health and safety training sessions, with a total of **171,387** employee participant-times



Practising Social Responsibility

JA upholds the "Every Corner" public welfare philosophy, deeply embedding social responsibility into its corporate development strategy and operational systems, and advancing its public welfare practices from isolated actions to a systematic framework. The Company has built a matrix of public welfare projects around "Every Person, Every Living Creature, Every Oasis, Every Degree of Warming, and Every Desert", continuously expanding the boundaries of its responsibilities. In 2025, the Company continued to broaden and deepen its practices in areas such as community development, rural revitalization, inclusive education, and ecological governance, empowering the sustainable development of society with clean energy, allowing its philosophy of responsibility to transcend regions and borders, tangibly responding to the expectations of the era and society, and demonstrating its long-term value and commitment to responsibility.

Key Performance



In 2025, the total amount of charitable donations from JA for the entire year reached RMB

155,400, covering various fields such as education, social welfare, and disaster relief.



Harmonious Communities

JA has always insisted on integrating corporate development with social responsibility, continuously advancing community development projects in all its operating regions. Guided by the "Every Corner" public welfare philosophy, the Company supports community building and livelihood improvements through tangible actions, contributing to rural revitalization and regional sustainable development. This approach fosters a symbiotic relationship between production operations and community development, showcasing the Company's positive contribution to building harmonious communities.

Guided by the national rural revitalization strategy, JA leverages its industrial chain synergies and photovoltaic technology expertise to innovatively advance the "PV+" poverty alleviation model. By constructing solar power stations for poverty alleviation, the Company organically integrates clean energy development with ecological restoration and industrial growth, providing sustained support for stable income growth in local communities. At the same time, the Company is exploring synergistic applications across multiple scenarios, including pastoral-solar, aquaculture-solar and agriculture-solar integration, as well as mountainous photovoltaic projects. It is establishing a three-pronged long-term mechanism comprising "providing financial assistance" and "creating employment opportunities", thereby shifting from "transfusion-style aid" to "self-sustaining revitalization". Through the development of clean energy, the Company is empowering rural economies and fostering a win-win outcome for both economic growth and ecological conservation.

2025 Annual Public Welfare and Charity Donation Actions (Selected)

Public Welfare Sector	Operation Area	Activity Name	Donation Details
 Social Development	Shijiazhuang Manufacturing Base	"A Glimmer of Light, A Bond Through Pages" Book Donation Programme	Donated 244 books to remote mountainous areas, enriching local reading resources and supporting educational development.
	Qijing Manufacturing Base	"Love Inspires Young Minds" Public Welfare Activity	Donated 200 books related to photovoltaics and conducted a PV knowledge outreach activity in schools to popularise green energy knowledge.
	Yangzhou Manufacturing Base	19 May Charity Day Donation	Donated RMB 30,000 to the Yangzhou Economic and Technological Development Zone Charity Federation via the Beijing Charity Federation for social welfare initiatives.
	Gaoyou Company	19 May Charity Day Donation	Donated a total of RMB 50,000 to the Gaoyou Charity Federation and the Gaoyou Economic Development Zone Charity Association, respectively.
 Support for Disadvantaged Groups	Yangzhou Manufacturing Base	Yangzhou Special Education School Material Donation Project	Donated materials worth approximately RMB 15,000 to blind children at the Yangzhou Special Education School, supporting the successful hosting of the Jasmine Blind Student Wind Orchestra concert.
	Baotou Manufacturing Base	Universal Love One-Day Donation	1,023 employees donated RMB 224,000 to the Red Cross Society of Qingshan District to assist disadvantaged groups.
	Bayan Nur Manufacturing Base	Targeted Donation for Flood Relief	Donated RMB 30,000 through the Beijing Charity Federation for the Post-disaster Reconstruction of Yongsheng Village, Taohai Town, Wuyuan County, Bayan Nur City.

JA maintains a global perspective, actively engaging in public welfare initiatives across various fields, including overseas emergency rescue, medical support, and community development. The Company collaborates with domestic and international non-profit organisations to address social needs in its operating locations. Through financial and material contributions, we promote the resolution of social issues and help popularise the concepts of energy equity and low-carbon development.

Case Study: JA Supports Cancer Treatment for Children and Adolescents in Brazil

JA is committed to the health of children and adolescents. In Brazil, the Company makes regular monthly donations to GRAACC (Grupo de Apoio ao Adolescente e à Criança com Câncer, the Support Group for Adolescents and Children with Cancer). This support benefits the GRAACC Hospital in São Paulo, a leading paediatric oncology center in Latin America, which provides high-complexity medical services and comprehensive care to patients and their families.

Through this long-term partnership, JA not only helps children and adolescent cancer patients in Brazil access professional medical services but also plays an active role in overseas public welfare, medical support, and social responsibility practices, setting an example for global social value creation.



Practising Social Responsibility

Case Study: JA Participates in a Charity Cycling Event to Support Cancer Research in Western Australia

From 2023 to 2025, JA actively participated in the "Cancer 200 Ride for the Perkins" charity cycling event. The event aims to raise funds for local cancer medical research, supporting scientists in developing gentler treatments, improving patient survival rates, and enhancing quality of life. The Company's local distributor team participates in the ride and provided sponsorship. This charity event, now in its 15th year, is one of Australia's largest and most community-engaged charity rides. The continued participation of JA not only contributes to the progress of local cancer research but also demonstrates the Company's long-term commitment to overseas medical public welfare and community support.



The "Cancer 200 Ride for The Perkins" Charity Cycling Event

Case Study: JA Donates to the New Zealand Food Network (NZFN)

JA is actively engaged in social welfare initiatives in New Zealand, having donated AUD 11,700 to the New Zealand Food Network (NZFN). This donation supports food logistics, sorting, and distribution, ensuring the basic living needs of vulnerable groups are met during the holiday season. The contribution reached 65 food hubs and community partner organisations across New Zealand, providing approximately 32,500 meals and helping thousands of vulnerable families have a safe and warm Christmas holiday. Company employees also actively participated in volunteer services, with five employees contributing a total of 15 hours, supporting community services through direct action and deeply integrating corporate development with community care.



JA Donation Event for NZFN

Case Study: JA Supports the Clean Energy Transition of Jubilee Church in Australia

JA actively promotes the sustainable development of communities both at home and abroad. In 2025, the Company donated high-efficiency solar modules and provided systematic technical support to Jubilee Church in Sydney, helping it build a distributed PV system. This project is not merely an equipment donation but a sustainable development practice with both economic and social value.



JA Donates High-efficiency Solar Modules

Inclusive Education

JA actively promotes inclusive education practices by establishing special educational projects and funds in collaboration with multiple foundations and international universities, covering talent cultivation from children and adolescents to students both at home and abroad. The Company breaks down geographical and resource barriers, empowering educational development through diverse forms of funding, ensuring that the light of knowledge illuminates every corner of learning.

2025 Inclusive Education Projects (Selected)

Yangzhou Manufacturing Base "JA Teacher and Student Grant" Programme and Collaboration with University Practical Training Bases

The "JA Teacher and Student Grant" programme was established at Yangzhou Bali Central Primary School, awarding scholarships to outstanding teachers and students for many consecutive years to support the steady development of local education.

A university practical training base was co-established with the College of Chemistry and Materials Science at Nanjing Normal University, focusing on the "commercialisation of research outcomes + practical talent cultivation". A summer practical training group visited the Yangzhou Manufacturing Base to gain technical knowledge on the front lines of PV cell and module production, participate in process discussions and on-the-job training, and engage in industry-university-research exchanges, completing a full-chain practical experience from theoretical learning to production optimisation. At a results-sharing session, postgraduate representatives presented academic reports on photovoltaics and proposed three optimisation suggestions for the enterprise, achieving a dual value exchange where university research empowers corporate development and corporate practice enriches university teaching.

Ningjin Manufacturing Base Sunshine Scholarship Activity

The "Walking Towards Light, Growing Towards the Sun" Sunshine Scholarship activity distributed RMB 25,000 in scholarships to five eligible children of employees.

Supported 19 students from disadvantaged backgrounds, distributing RMB 95,000 in aid in 2025, using the scholarship programme as a bond to jointly create a more harmonious and vibrant corporate atmosphere.

Ordos Manufacturing Base Educational Support Activities

Donated books, stationery, and other materials to local kindergartens and schools for left-behind children, improving teaching conditions in rural schools and helping children to learn happily.

Partnered with Ordos Hengshui Experimental Middle School to co-establish an educational practice base focusing on cultivating scientific literacy and raising awareness of new energy among adolescents. The initiative integrates popular science on photovoltaics and hands-on experience into the secondary school curriculum, creating a growth platform for students that combines theory with practice and helps to cultivate future talent with a green development mindset.

Qijing Manufacturing Base New Energy Knowledge Popularisation and Education Activity

In collaboration with Cuifeng Primary School in the Qijing Economic and Technological Development Zone, we organised an event featuring a popular science lecture, a graphic exhibition, and an interactive Q&A session. The event explained the principles of photovoltaic cells, the operation of PV power stations, and the environmental value of green energy, helping students build a foundational understanding of the new energy industry. It reached over 150 primary school students, with an interaction and participation rate exceeding 90%.



JA Teaching Assistant Scholarship at Bali Primary School, Yangzhou Manufacturing Base



"PV Knowledge Enters the Campus, JA's Love Inspires Young Hearts" Public Welfare Activity at the Qijing Manufacturing Base



Sunshine Scholarship Programme at the Ningjin Manufacturing Base

Ecological Protection

Ecological protection is a crucial mission for enterprises to practise sustainable development and achieve harmony between humanity and nature. JA integrates its technological advantages and multi-party resources to proactively participate in the environmental protection and systematic restoration of key ecological areas. Through scientific management and innovative practices, the Company effectively promotes ecological improvement, demonstrating its positive contribution to protecting nature and advancing green development.

Ecological Protection Initiatives in 2025 (Selected)

Baotou Manufacturing Base

In April 2025, JA Baotou Manufacturing Base held its sixth annual voluntary tree-planting event. A total of 50 employees participated, successfully planting 300 saplings and putting the concepts of ecological protection and green development into practice.

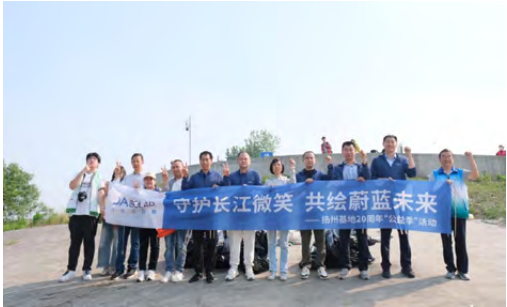
Yangzhou Manufacturing Base

In May 2025, the Yangzhou Manufacturing Base organised a volunteer team of seven employees to participate in the "Industrial Chain Gathers Energy, Youth Benefits Together" themed event. They walked 6 kilometres along the ancient canal trail, conveying the "Green + Public Welfare" concept through action and demonstrating the Company's commitment to corporate social responsibility.

In May 2025, a volunteer team from the Yangzhou Manufacturing Base visited the banks of the Yangtze River for the "Protecting the Yangtze's Smile" environmental campaign. The team donated environmental observation equipment, became a public welfare partner of the Yangzhou Finless Porpoise Conservation Association, participated in patrols of the porpoise habitat and river clean-ups, and artistically arranged the collected waste into a giant "JA 20th Anniversary" logo, vividly conveying the ecological concept of "Turning Waste into Beauty".



Tree-planting Activity at the Baotou Manufacturing Base



"Protecting the Yangtze's Smile" Environmental Public Welfare Activity at the Yangzhou Manufacturing Base



Chapter 4

Governance Chapter

To safeguard its sustainable development, JA continuously enhances its governance system, which is centered around the Board of Directors. The Company focuses on strengthening a comprehensive defense line that covers compliant operations, risk control, integrity, and information security. Through systematic governance practices, we ensure the steady advancement of the Company's strategy and the achievement of its long-term goals.

Material Topics Covered in This Chapter ▼

Corporate Governance	1
Compliance and Risk Management	2
Anti-corruption and Business Ethics	3
Information Security and Privacy Protection	4

Material Topics Covered in This Chapter ▼

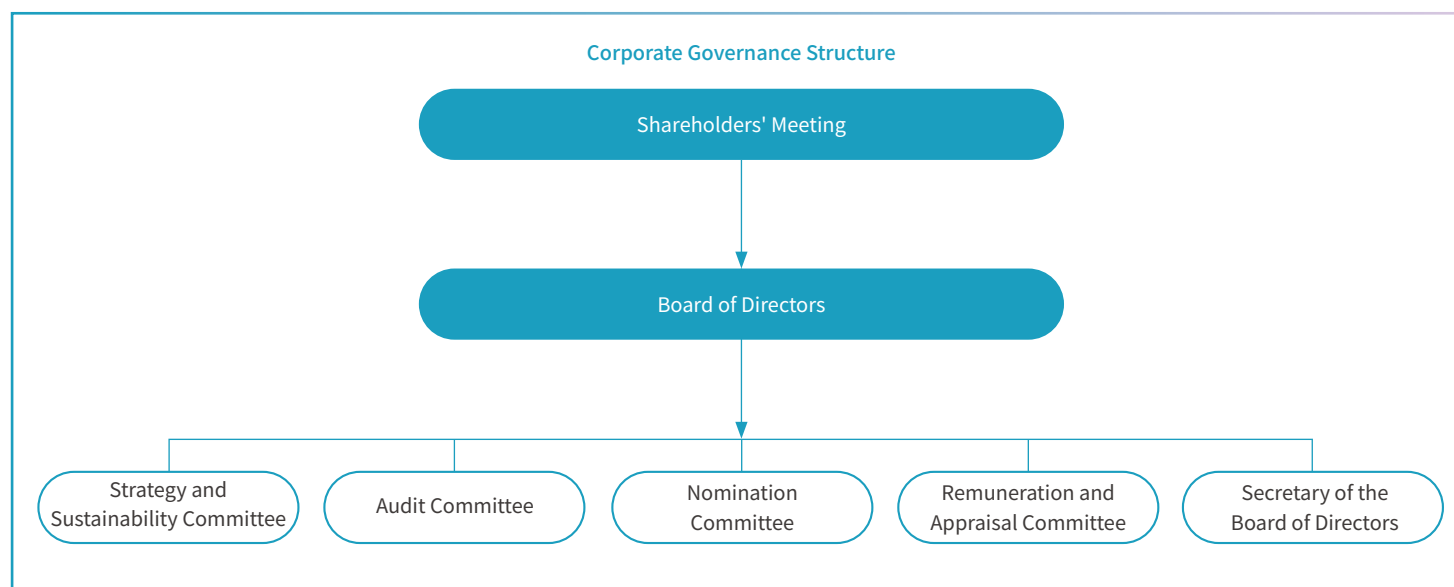


Corporate Governance

Corporate Governance Structure

JA adheres to a series of laws, regulations, and regulatory requirements, including the *Company Law of the People's Republic of China*, the *Securities Law of the People's Republic of China*, the *Code of Corporate Governance for Listed Companies*, and the *Rules Governing the Listing of Stocks on the Shenzhen Stock Exchange*. The Company has established a governance structure with the shareholders' meeting as the highest authority, the Board of Directors as the core of strategic decision-making and governance, specialized committees of the Board providing professional support, and the management level as the executive body for operations. This forms a corporate governance system characterized by scientific decision-making, effective supervision, and strong execution, ensuring the Company's compliant operation and sustainable development.

In accordance with internal control systems such as the *Articles of Association*, the *Rules of Procedure for the General Meeting of Shareholders*, and the *Rules of Procedure for the Board of Directors*, JA standardizes the procedures for the selection, appointment, evaluation, and removal of directors and senior management, ensuring the Board of Directors effectively fulfils its duties in major decision-making and business management. Members of the Company's Board of Directors are nominated by the Board and elected by the shareholders' meeting for a term of three years, and they are eligible for re-election. To ensure the Board is diligent, responsible, and effective, the director of the Company may not hold more than four concurrent positions in other entities. Any amendments to the *Articles of Association* must be submitted to the shareholders' meeting for deliberation and approval, and the resolutions of the shareholders' meeting must be strictly implemented to safeguard the Company's stable operations.



Meeting Type	Attendance Rate of Relevant Members	Number of Meetings
Shareholders' General Meeting	>50%	6
Board of Directors' Meeting	100%	16
Special Meeting of Independent Directors	100%	2
Specialised Committees of the Board of Directors	100%	15

Major Honours:

In 2025, the Company received the "Best Practice Case of the Board of Directors", the "5A Evaluation of the Board Secretary's Performance", and the "Best Practice Case of the Board Office" awarded by the China Association of Public Companies.



Professionalism, Independence, and Diversification of the Board of Directors

The Company is committed to building a Board of Directors that is strategically aligned, risk-controlled, and highly adaptable. It has formulated and implemented the *Charter of the Strategy and Sustainability Committee* and the *Principles and Implementation of Diversity of Board Members* to continuously optimize the Board's structure. During the director nomination process, the Company comprehensively considers diverse factors such as educational background, gender, age, nationality, and cultural background. It also systematically identifies core professional capabilities that support the Company's future development, including industry experience, and financial and risk management expertise, with a particular focus on professional backgrounds in emerging fields such as artificial intelligence, cybersecurity, and sustainable development.

Through institutional arrangements such as the *Independent Director System and the Working Rules for Special Meetings of Independent Directors*, the Company enhances the safeguards for independent directors in fulfilling their duties, ensuring their full participation in corporate governance and supervision. The Company continuously optimizes its governance structure and improves supervisory efficiency, with independent directors serving as chairpersons of key special committees, including the Audit Committee, the Remuneration and Appraisal Committee, and the Nomination Committee.

As of the end of the reporting period, the Company's Board of Directors comprises 9 members. There were 3 independent directors, accounting for 33% of the total board; 2 female directors, representing 22%; and 6 directors holding a master's degree or higher. The professional backgrounds of the board members cover fields such as renewable energy applications, sustainable development, legal compliance, and financial management. This diverse and complementary structure provides solid governance support for the Company's high-quality, sustainable development.

Executive Compensation Management

JA has always adhered to a standardized, incentive-based, and long-term approach to the compensation management of its directors and senior executives. Guided by the *Working Rules for the Remuneration and Appraisal Committee* and the *System for the Remuneration and Appraisal of the Board of Directors and Senior Management*, the Company scientifically formulates and rigorously reviews compensation plans for directors and senior management, taking into comprehensive consideration the Company's operating performance, industry compensation standards, and job responsibilities. The Company has established a robust performance evaluation mechanism for the Board of Directors, where the Board and the Remuneration and Appraisal Committee conduct regular performance evaluations of directors and senior executives (with a 100% assessment coverage rate for board members during the reporting period). This constructs an incentive mechanism that links executive compensation with corporate and individual performance, as well as long-term strategic and ESG performance, thereby standardizing conduct and ensuring the effectiveness of governance.

Protection of Investor Rights

JA strictly adheres to the requirements of laws and regulations such as the *Company Law* and the *Securities Law*, as well as the *Articles of Association*. It has formulated and refined management standards including the *Management System for Investor Relations*, the *Management System for Information Disclosure*, and the *Management System for Reception of Specific Visitors*, fulfilling its information disclosure obligations based on the principles of being "truthful, accurate, complete, timely, fair, concise, clear, and easy to understand". In 2025, the Company disclosed 4 periodic reports and 121 interim reports, ensuring investors' right to be informed about significant corporate matters and providing a reliable basis for their decision-making through compliant and transparent information dissemination.

To effectively safeguard the legitimate rights and interests of investors, the Company has proactively built a diversified "online + offline" investor communication system. Online, information is conveyed and inquiries are addressed through new media platforms, the official website column, the interaction easy(Shenzhen Stock Exchange), and an investor hotline; offline, communication is deepened through formats such as results briefings and on-site visits. In 2025, the Company held a total of 7 investor communication meetings (including 5 results briefings), responded to 88 questions via the interactive platform, and hosted 23 institutional research visits (involving over 500 institutions and approximately 1,000 times of investor participants), providing investors with equal opportunities to access information, attentively listening to their demands and suggestions, and effectively bridging the distance with investors to enhance communication quality and efficiency.

Main Honours:

In 2025, the Company received a Grade A rating in the Information Disclosure Assessment by the Shenzhen Stock Exchange for the third consecutive year.

The Company was recognized with an award for excellent practice in its 2024 annual report results briefing by the China Association for Public Companies.



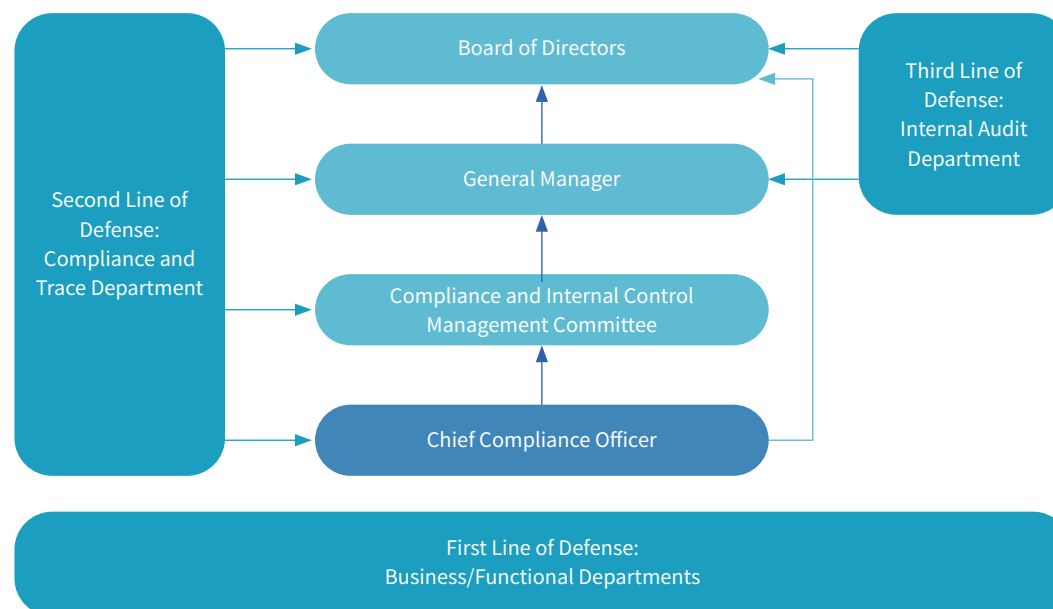
Compliance and Risk Management

Governance

To ensure that the Company's operations fully comply with laws and regulations such as the *Securities Law of the People's Republic of China* and the *Export Control Law of the People's Republic of China*, Regulatory Requirements like the *Measures for the Compliance Management of Central Enterprises* and the *Guidelines for the Compliance Management of Overseas Operations of Enterprises*, as well as standards and industry codes including the *Basic Standard for Enterprise Internal Control* and its supporting guidelines, and the *Compliance Management Systems — Requirements with Guidance for Use*, JA has established a comprehensive compliance and risk management system covering both the foundational framework and specialized areas. At the foundational level, core policies such as the *Compliance Management Policy*, *Compliance Obligation Identification and Risk Assessment Policy* have been formulated. In specialized areas, these are supplemented by targeted rules including the *Export Control Compliance System*, the *Antitrust and Competition Law Global Compliance Policy*, and the *Intellectual Property Management Measures*. In 2025, in conjunction with organizational structure adjustments, the Company made adaptive revisions to its basic compliance systems and several specialized compliance systems, while also introducing a new *Compliance Traceability Management System*. By dynamically optimizing its policy framework and clarifying compliance management requirements, the Company has solidified the institutional foundation for its compliant operations and risk prevention and control.

The Company has established "Three Lines of Defense" based on compliance, pushing risk prevention and control forward to provide a solid guarantee for the Company's high-quality development.

Compliance Management Structure and the "Three Lines of Defense"



Key Responsibilities in Compliance Management

Board of Directors



Leads the compliance culture, promotes compliant operations, supervises the operation of compliance objectives and systems, and receives reports on major compliance and risk issues.

General Manager



Organizes and promotes the enhancement of the compliance management system, allocates resources for compliance and risk management, incorporates compliance performance into appraisals, and establishes accountability mechanisms.

Compliance and Internal Control Management Committee



Composed of the CEO and key members of the management level, this committee identifies and assesses major compliance risks, guides responses to significant compliance risks or incidents, approves the Company's compliance management plans and reports, conducts management reviews of the system's operation, and promotes its continuous improvement.

Chief Compliance Officer



Reports compliance and risk matters to the management level and the committee, and directly to the Board of Directors when necessary; leads the work of the compliance management department, participates in major decision-making and provides compliance opinions; guides the compliance and risk management of subsidiary companies, and has the right to speak independently.

Internal Audit Department



As the third line of defense, it conducts independent audit supervision, collaboratively evaluates the effectiveness of the compliance and risk management system, and is responsible for receiving and investigating reports of violations, providing independent assurance for compliance risk management.

Compliance and Trace Department



As the compliance management department and the second line of defense, it formulates compliance management policies and implementation rules, coordinates the centralized management and supervision of compliance risks, organizes the identification of compliance obligations, and conducts risk identification, assessment, and early warning. It also provides compliance support to business departments, carries out regular compliance training, and cultivates a compliance culture.

Business/Functional Departments



As the first line of defense, these departments are responsible for independently identifying, assessing, and managing compliance risks within their respective scopes of responsibility, and embedding compliance requirements into business processes.

Strategy

JA regards compliance and risk management as a core strategy for achieving high-quality sustainable development. Guided by the basic principles of "comprehensive coverage, clear responsibilities, practical efficiency, and collaborative operation", the Company has established a compliance obligation identification and risk assessment mechanism that is characterized by "full participation, dynamic adjustment, clear focus, and tiered management". Combined with system evaluation criteria of "conformity and effectiveness, comprehensiveness, self-assessment and professional evaluation, and independent objectivity", the Company embeds compliance requirements throughout the entire process of business management. It has established a responsibility system centered on the three lines of defense, deeply integrating it into the full spectrum of corporate governance and strategic decision-making, ultimately enabling the proactive identification and forward-looking response to challenges arising from changes in the internal and external environment. This robust compliance and risk control capability safeguards the Company's globalization operations and creates long-term sustainable value for its stakeholders.

Tax Strategy

JA upholds a responsible approach to tax management and is committed to building a robust and transparent tax management system that aligns tax policies with the Company's overall strategy and ESG objectives. We are committed to complying with the spirit and letter of tax laws and regulations in all jurisdictions where we operate globally, fulfilling our tax obligations lawfully, accurately, and in a timely manner, contributing to the sustainable economic and social development of local communities, and ensuring that our tax arrangements are consistent with the commercial substance of the Company's value creation.



Compliance Requirements

Paying taxes according to the law: We comply with the relevant tax laws, tax practices, operational norms, and international tax regulations (such as the OECD's BEPS project and BEPS 2.0 global minimum tax rules) of the country or region where the business operates, uphold high professional standards, and ensure legal compliance by accurately and timely declaring and paying all taxes and disclosing relevant information in accordance with local regulations.



Transfer pricing: The Company establishes transfer pricing policies based on the arm's length principle. To meet internationally recognized transfer pricing standards and rules.



Our commitment¹



1. Principles of Tax Planning

The Company conducts tax planning management in accordance with the law for corporate income tax and other indirect taxes. Tax compliance means that the Company pays taxes on time and in full, including disclosing all relevant facts to tax authorities when necessary. The Company neither tolerates nor encourages any tax evasion or tax avoidance behavior.

The Company designs its tax structure based on reasonable business purposes and the substance of its operations, avoiding tax structures that lack commercial substance. We formulate and implement legal, compliant, and transparent tax strategies and policies based on their economic substance.

The Company does not engage in aggressive tax arrangements and will not transfer the value created to tax havens. The Company takes measures to ensure that the taxes paid are consistent with the profit-generating activities and avoids using tax structures that lack commercial substance, prohibiting the use of shell companies, fictitious transactions, or the abuse of tax treaties.



3. Special Management Principles for Cross-Border Tax

Permanent Establishment (PE) management: We strictly assess and manage remote sales teams or digital services in accordance with OECD guidelines on taxation in the digital economy.

Digital Services Tax (DST) management: For regions such as the EU that impose digital taxes, we separately account for relevant income and assess the risk of double taxation.



2. Tax Risk Management Principles

Risk identification and assessment: We regularly conduct tax health checks to identify high risk areas (such as cross-border related party transactions and permanent establishment determinations), and use a tax risk matrix to quantify risk levels (e.g., likelihood × impact).

Dispute prevention and response: The Company maintains open and honest communication with tax authorities and tax policymakers, providing transparent and accessible information to various tax authorities, and consulting transfer pricing rules for related party transactions in advance to facilitate their understanding of our tax strategy and fundamental business model, which serves as guidance for the Company's daily tax operations.

Tax information disclosure: The Company reports and discloses its tax status in accordance with applicable domestic and international tax regulations, maintaining transparency in its operations and tax status.

GAAR: The Company complies with the General Anti-Avoidance Rules (GAAR) of various countries and does not us



4. Tax Policy Implementation and Supervision

Training and communication: Regular global tax compliance training is provided to ensure employees understand the latest regulations (such as the progress of BEPS 2.0 implementation).

Audit and improvement: The internal risk control department conducts routine reviews of tax policy implementation, while external consultants assess compliance effectiveness.

¹This commitment covers all business units and subsidiaries of JA Solar Technology Co., Ltd. Group and all entities controlled by JA Solar Technology Co., Ltd.

Impacts, Risks, and Opportunities Management

JA has established a regular mechanism for identifying, assessing, and responding to issues concerning compliant operations, internal controls, cross-border business, information security, and business ethics, fully integrating the related impacts, risks, and opportunities into the Company's comprehensive risk management system. The Company focuses on analyzing potential risks arising from updates to laws and regulations, differences in cross-border supervision, data security, anti-corruption, and supply chain compliance. Concurrently, it seizes the opportunities to enhance operational stability and brand value presented by upgrading its compliance system, implementing digital risk control, and promoting transparent governance. Through dynamic risk assessment, graded control, and regular compliance development, the Company continuously improves its risk control mechanisms to ensure compliant operations and high-quality sustainable development.

Development of the Compliance Management System

The Company strictly adheres to the ISO 37301:2021 and GB/T 35770:2022 standards and its internal management requirements to build a systematic compliance management system. This system covers key areas such as corporate governance, anti-commercial bribery, intellectual property protection, export control, labor and employment, and antitrust and anti-unfair competition. In accordance with the *Compliance Management System Review Regulations*, the Company conducts internal audits and management reviews of its risk management processes to comprehensively evaluate the system's conformity. The Company passed the external audit of its compliance management system by BSI in 2024. In 2025, it completed a re-audit of the system (including its risk management processes) and obtained dual certification for the ISO 37301:2021 and GB/T 35770:2022 compliance management systems, while also receiving the Pioneer of Standardization Award from BSI.



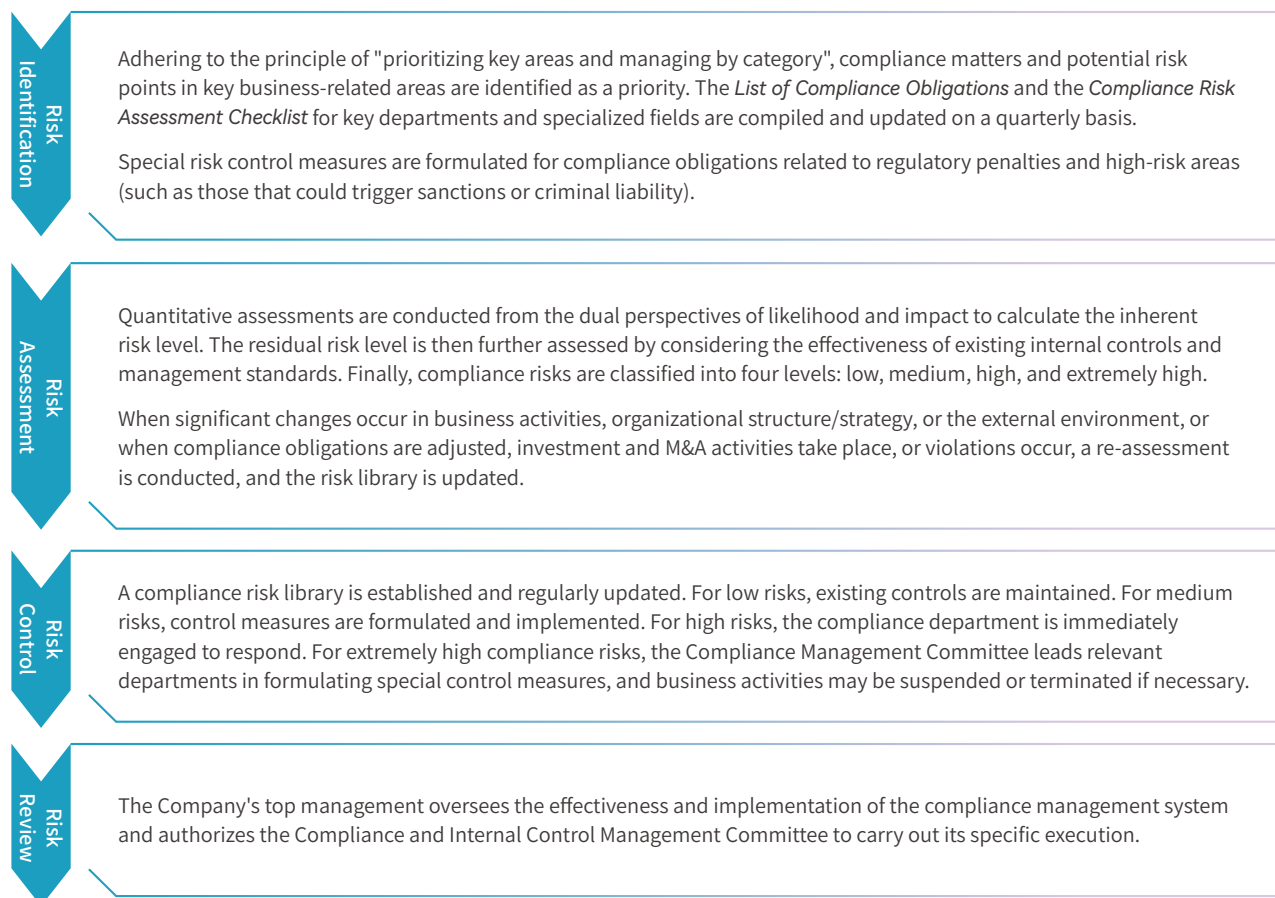


The Company Receives the "Pioneer of Standardization" Award Trophy

Compliance Risk Management

The Company has established and continuously operates a dynamic, full-process compliance risk management mechanism encompassing "risk identification, risk assessment, and risk control", achieving precise prevention and control of compliance risks through standardized and tiered management measures. In 2025, the Company focused on conducting specialized compliance risk identification and in-depth control efforts in six key areas: antitrust and anti-unfair competition, labor and employment, export control, corporate governance, anti-commercial bribery, and intellectual property protection, as well as in business processes such as procurement, sales, external communication, and publicity. For the various compliance risks identified, the Company has systematically formulated and implemented corresponding measures to promote the deep integration of compliance management with business operations. Specific initiatives include supplementing and improving business compliance clauses, optimizing compliance review processes, issuing special compliance operating guidelines, and strengthening specialized compliance training.

The Company's Risk (including Specific and Emerging Risks) Management Process



Case Study: Continuously Strengthening Overseas Business Compliance Management

The Company places great importance on preventing and controlling risks related to export controls and economic sanctions. It has built a dual compliance "firewall" combining systemic controls and institutional guidance to comprehensively enhance the timeliness and thoroughness of risk management.

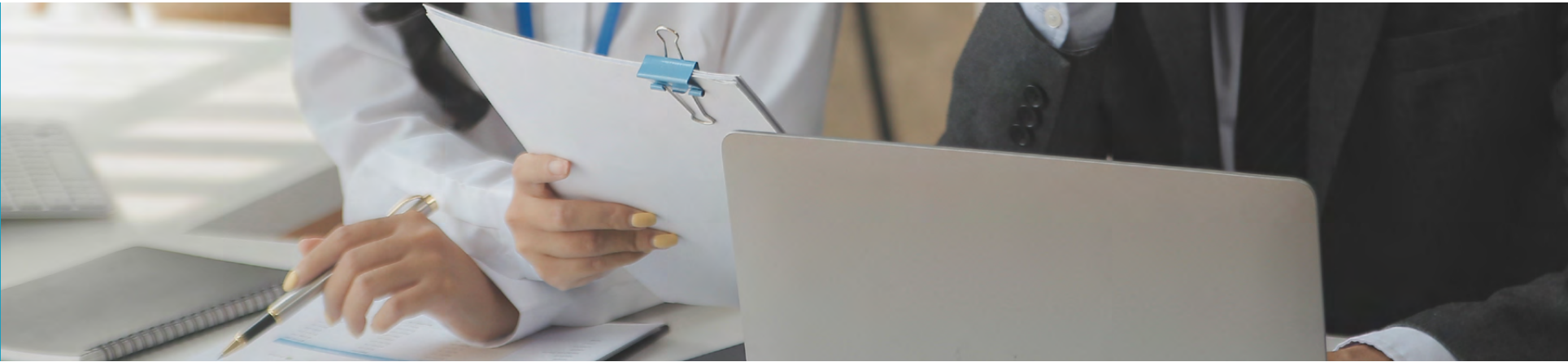
At the System Level: A blacklist screening procedure is deployed in the CRM system to conduct automated screening of all transaction customers and project destinations against blacklists and high-risk regions. This establishes a line of defense against export control and sanction risks at the source of business operations.

At the Institutional Level: Multiple special compliance guidelines have been issued, covering topics such as operational alerts for business in high-risk countries and regions and requirements for implementing new export control measures on items from the Ministry of Commerce. These provide clear compliance operating guidance for all business segments.

Specific and Emerging Risks

While systematically promoting regular compliance and risk management, the Company also systematically identifies and controls specific risk exposures in compliance areas such as export control and intellectual property protection, improves risk prevention and control systems for key areas, and continuously enhances its level of compliance management.

Risk Name	Risk Description	Potential Impact of the Risk on the Company	Mitigation Measures
Export Control and Sanction Compliance Risks	The global export control and sanctions compliance environment is becoming increasingly stringent, while the complexity and volatility of regulations across different jurisdictions continue to rise. The Company faces potential risks in the compliance management of its cross-border business operations and is required to devote resources to ensure that all transactions comply with all applicable international and domestic regulatory requirements.	Likelihood: high Severity: high	• An export control and sanctions blacklist screening system has been established and is continuously being improved. • Export control and sanction compliance training is conducted for all employees. • Announcements on temporary control measures and compliance guidelines are issued.
Intellectual Property Infringement Risks	There is a high incidence of patent litigation concerning photovoltaic cell technology both domestically and internationally. With the rapid mass production of JA's N-type technologies such as TOPCon and BC, there is a possibility of inadvertently infringing upon third-party foundational patents.	Likelihood: high Severity: high	• Freedom to Operate (FTO) searches are conducted before new products are initiated. • Cross-licensing negotiations are conducted with major patent holders to establish a patent pool defense mechanism. • High-quality proprietary patents are developed based on R&D efforts to be used as leverage in potential counter-litigation.



At the same time, JA maintains a highly forward-looking perspective, proactively identifying and assessing emerging risks such as the rapid iteration of photovoltaic technology and the restructuring of the global supply chain. These are incorporated into the Company's overall risk management framework to enhance its strategic resilience in facing future uncertainties.

Potential Emerging Risks Faced by JA

Risk Name	Risk Description	Potential Impact of the Risk on the Company	Mitigation Measures
Risks of Rapid Iteration in PV Technology	The photovoltaic (PV) industry is currently in a period of rapid technological evolution and transformation, with N-type cells (such as TOPCon and HJT) accelerating the replacement of traditional P-type technology, while cutting-edge technological routes like perovskites are also developing quickly. Any misjudgment of mainstream technology trends or delays in the industrial deployment of new technologies could challenge the Company's existing production capacity with declining economic viability and weakened product competitiveness.	Existing mainstream production lines and equipment may face the risk of accelerated depreciation or premature obsolescence. If new product development fails to meet market demands in a timely manner, there is a risk of losing market share. Falling behind in the competition for next-generation technology could impact long-term profitability and the technological brand image.	The Company adheres to the R&D strategy of "mass-producing one generation, reserving the next, and developing the one after that", actively developing and reserving a variety of new, high-efficiency cell technologies based on application scenarios and potential demand. We continuously increase R&D investment, conducting parallel research, development, and reservation of both mainstream and cutting-edge technologies. We have established a dynamic evaluation and decision-making mechanism for our technology roadmap, closely monitoring industry technology trends and commercialization progress. The Company prudently advances industrial validation and capacity implementation of new technologies through methods such as the construction of pilot lines.
Globalization, Supply Chain and Trade Policy Risks	Major global markets (such as Europe and the US) are promoting the "regionalization" of the PV supply chain through measures like carbon footprint requirements, local manufacturing incentives, and trade restrictions. The rise of geopolitics and trade protectionism may lead to profound changes in the existing global supply chain structure.	Products exported to key markets may face higher trade barriers (such as tariffs and anti-circumvention investigations) or market access restrictions. Overseas capacity construction undertaken to meet localization requirements will face challenges of increased investment costs, greater operational complexity, and geopolitical uncertainties. The stability of the cross-border supply of key raw materials or equipment may be affected.	We actively promote a globalization strategy and, based on actual needs, establish regional operations centers in major markets or friendly regions to build a supply chain that meets localization requirements, thereby staying close to customers and mitigating trade risks. The Company continues to deepen its supply chain due diligence and compliance management to ensure the entire chain complies with the regulations and traceability requirements of target markets. We establish strategic partnerships with key suppliers and explore diversified supply solutions for critical materials to enhance supply chain resilience.

Building a Culture of Compliance and Risk Management

In 2025, the Company further developed a systematic and structured compliance training and culture development system. Through multi-channel communication, tiered training and comprehensive assessment, it embedded the compliance philosophy into the daily work of all employees. Meanwhile, by requiring all employees to sign compliance commitment letters, the Company further consolidated employee accountability, raised compliance awareness and strengthened practical risk prevention and control capabilities. In addition, the Company issued compliance guidelines and operation manuals for key areas to provide employees with standardized and user-friendly practical references. It integrated compliance risk management performance into the employee performance appraisal system. The Company also provided customized compliance risk management awareness promotion and training on a regular basis for all directors, senior management personnel, employees in departments and positions with relatively high compliance risks, as well as all employees, covering relevant policies, laws and regulations and interpretation of typical risk cases, so as to consolidate the cultural foundation of the Company's compliant operation.



Promoting a Culture of Compliance

A dedicated legal and compliance column was established on the internal office OA platform to regularly publish compliance guidance, tips, risk alerts, updates on new regulations, and typical case studies. Concurrently, events like legal publicity week are leveraged to ensure employees can easily grasp the latest compliance requirements and strengthen their awareness of compliance risks.



Compliance Training

Targeted training topics are developed based on the business characteristics and risk exposure points of different positions, with empowerment training delivered through a blend of online and offline methods. In 2025, the Company conducted specialized compliance training for all employees and personnel in specific roles. The training topics covered areas such as compliance traceability, export control, intellectual property protection, antitrust and anti-unfair competition, labor and employment, and anti-commercial bribery. Compliance training videos are also uploaded to the "Yidian Zhishi" online learning platform, allowing employees to access and study them at any time.



Closed-Loop Compliance Management

All current and newly hired employees are required to study the *Code of Conduct* and sign a compliance commitment letter. Compliance performance is integrated into the annual performance appraisal system for all staff, and the effectiveness of building a compliance culture is included in the scope of management reviews. This promotes a closed-loop management of compliance, from "knowing" to "doing", and continuously fosters a culture where all employees abide by the law, operate with integrity, and are proactively compliant.

Case Study: Organizing Online Specialized Compliance Training in Key Risk Areas

To strengthen compliance awareness and practical capabilities in key areas, the Company's Compliance and Trace Department organized two specialised online training sessions in 2025 on export control and anti-trust compliance, utilizing the internal "Yidian Zhishi" learning platform.

Both training sessions focused on the core requirements of laws and regulations, typical enforcement cases, and internal risk prevention and control practices. The course videos were simultaneously uploaded to the platform for all employees to access for self-study at any time. Following the launch of the courses, personnel from relevant positions actively participated, and the training series effectively enhanced their depth of understanding and prevention capabilities regarding specific compliance risks.



Online Compliance Training on Antitrust and China Export Control

Targets and Metrics

Compliance and Risk Management Targets

Update basic compliance management systems as needed, regularly update the list of compliance obligations and risk assessment, and continuously optimize reporting channels to ensure effective follow-up on reported matters.

Conduct no fewer than 4 specialized compliance training sessions annually.

Maintain the compliance column on the Company's internal OA platform.

Targets Achievement in 2025

Continuously improved compliance management.

Completed compliance training for all key areas as planned and on a tiered basis, including export control, antitrust and anti-unfair competition, and traceability empowerment.

Published 12 Items in the column, including updates on new regulations, compliance guidance, and articles on compliance knowledge.

Other Performance



In 2025, the Company had *no major* compliance violations, and overall compliance risk was within a controllable range.

Anti-corruption and Business Ethics

Business Ethics Management System

JA strictly adheres to internationally recognized standards such as the *United Nations Guiding Principles on Business and Human Rights*, the International Labor Organization's *Declaration on Fundamental Principles and Rights at Work*, the *RBA Code of Conduct*, and the *Ten Principles of the United Nations Global Compact*, and complies with the *Anti-Money Laundering Law of the People's Republic of China*, the *Anti-Monopoly Law of the People's Republic of China*, the *Anti-Unfair Competition Law of the People's Republic of China*, the *Foreign Trade Law of the People's Republic of China*, and relevant laws and regulations in all overseas operating locations. The Company has formulated and publicly disclosed a series of policies, including the *Code of Conduct*, the *Antitrust and Competition Law Global Compliance Policy*, the *Anti-Fraud Reporting and Handling Procedures*, and the *Whistleblower Protection and Integrity-based Reporting Management System*, which set out clear standards for business ethics, conflicts of interest, prohibition of corruption and bribery, antitrust and fair competition, anti-money laundering, and reporting violations. At the same time, the Company regularly reviews and updates its policies to meet management needs, and is committed to maintaining a fair competitive market environment and ensuring the healthy and orderly development of the market.

Excerpts from the Code of Conduct

Business Ethics

We operate with integrity and require all employees to strictly comply with laws and regulations and adhere to business ethics.

Any form of false statement, inaccurate record-keeping, conflict of interest, insider trading, or disclosure of commercial secrets is prohibited.

Improper conduct such as theft or misappropriation of company assets is strictly forbidden.

All forms of corruption and bribery must be resisted, and all applicable anti-money laundering, antitrust, and anti-unfair competition regulations must be followed.

Conflicts of Interest

If personal interests could conflict with their company duties or other interests of the Company, employees must promptly disclose this to the management level. This includes, but is not limited to, external employment, other activities and financial interests, handling and sharing of internal company information, business opportunities belonging to the Company, and conflicts of interest involving family members and other personal relationships.

The selection of suppliers and business partners must be based on factors such as quality, price, reliability, service, and delivery times, and not on personal relationships or potential personal gain.

Prohibition of Corruption and Bribery

It is prohibited to offer, promise, authorize, or give bribes, and it is also prohibited to solicit or agree to accept bribes.

Business hospitality must comply with all applicable laws and company policies.

It is forbidden to use any item of value to illegally induce others to purchase, lease, use, or recommend the Company's products or services.

Soliciting or accepting valuable gifts, cash, or other such items is prohibited.

The Audit Committee of the Board of Directors is a specialized working body established by the Board in accordance with the resolution of the Shareholders' Meeting and is responsible to the Board of Directors, primarily overseeing communication, supervision, and verification of the Company's internal and external audits. The Audit Committee has an internal audit department that serves its day-to-day administrative body, responsible for routine liaison and meeting organization, and exercises the power of internal audit supervision within its authorized scope, which specifically includes:

- 1 Supervising and evaluating the establishment and operation of the Company's internal control systems.
- 2 Establishing and improving internal supervision and anti-fraud mechanisms, adhering to the principle of "investigating all fraud cases thoroughly".
- 3 Proposing corrective recommendations for issues identified during audits and supervision, overseeing the implementation of corrections, and fostering a virtuous cycle of management improvement through investigation.
- 4 Conducting publicity and education on professional integrity to continuously foster an upright, honest, and law-abiding working environment.

Business Ethics Management Initiatives

The Company upholds the corporate spirit of "sincerity, simplicity, respect, and gratitude", advocates a corporate culture of integrity and uprightness, maintains a zero-tolerance policy towards fraudulent behavior, and continuously strengthens anti-corruption, integrity, and compliance controls to ensure compliant operations in areas such as anti-bribery, anti-fraud, anti-extortion, anti-money laundering, antitrust, and anti-unfair competition.

The Company continuously improves its related governance systems, periodically conducts special audits, departure audits, and project settlement audits, and publishes the results and rectification status of these audits and supervisions within an appropriate scope, creating a virtuous cycle of promoting management through investigation and driving improvement through rectification. It also reviews systems and processes related to anti-corruption and anti-bribery, antitrust, and anti-unfair competition, rigorously cracking down on all types of illegal and non-compliant activities to provide a solid guarantee for building a clean, efficient, and fair operational environment.

Anti-corruption and Integrity Building

The Company proactively conducts anti-fraud supervision and risk assessments, formulating an anti-commercial bribery compliance obligation checklist and a risk assessment checklist, and develops targeted response strategies for identified risks to effectively mitigate them. In 2025, the Company's anti-commercial bribery risk assessment covered all workplaces and departments, reminding them to strictly adhere to moral bottom lines and integrity principles.

At the same time, JA is committed to building a clean and transparent business ecosystem with its partners and suppliers. This is achieved by publishing the *Open Letter to JA's Partners*, signing the *Integrity and Anti-Corruption Cooperation Agreement*, and formulating the *Supplier Code of Conduct*, which clearly specify ethical business conduct requirements regarding anti-bribery and anti-corruption. The Company implements end-to-end integrity management throughout the entire chain by conducting regular legal due diligence on third-party partners, organizing integrity training for suppliers and distributors, distributing ESG questionnaires that include business ethics to key suppliers, and terminating cooperation with and blacklisting non-compliant partners.

Key Performance



In 2025, the Company

Achieved **100**% coverage in signing the *Integrity and Anti-Corruption Cooperation Agreement* with suppliers



Antitrust and Anti-Unfair Competition

In the area of antitrust and anti-unfair competition compliance, the Company has assessed that the main risks are concentrated in business dealings and advertising. Based on the risk assessment results, relevant countermeasures have been developed, such as formulating and issuing the *Antitrust and Competition Law Global Compliance Policy*, the *Compliance Guidelines for Antitrust and Competition Law (I) – Dealings with Industry Associations*, and the *Compliance Guidelines for Antitrust and Competition Law (II) – Prohibition of Monopoly Agreements*, which clarify compliance requirements for antitrust and competition. For advertising and publicity, the *Information Release Management System* has been formulated and the *Compliance Review Checklist for External Information Release* has been designed, strengthening the compliance defense line in this field. In 2025, the Company had no legal litigation cases involving antitrust or unfair competition.



Whistleblowing and Appeal Mechanism

JA has formulated the *Antitrust and Competition Law Global Compliance Policy*, the *Overseas Reporting Handling Procedures*, the *Anti-Fraud Reporting and Handling Procedures* to build a comprehensive and accessible reporting mechanism, and an introduction to this mechanism (including how to use reporting channels) is incorporated into specialized compliance training. The Company provides internal and external stakeholders with multiple reporting channels, including a WeChat official account, a complaint hotline, and an email address. It has also established SpeakUp, a third-party global, multilingual, and fully anonymous reporting platform, to effectively protect the rights and privacy of whistleblowers. The Company standardizes the management of all complaints and reports to ensure their effective handling worldwide, encouraging relevant parties to promptly report violations of business ethics such as bribery, corruption, extortion, fraud, money laundering, and unfair competition, which helps enhance the Company's ability to detect non-compliant behavior and improve its compliance risk management.

JA strictly protects the confidentiality of whistleblower information and prohibits any form of extortion, threats, or retaliation. The Company has established domestic and overseas complaint and reporting channels managed by dedicated personnel. Upon receiving a report, the Company's internal audit department will promptly screen and thoroughly investigate the matter. If any suspected violations of laws or criminal offences are found, the case will be transferred to the judicial authorities for criminal prosecution in strict accordance with regulations.

Domestic Reporting Channels:

1. Scan the QR code to report directly



2. Official website: Click "SpeakUp" in the upper right corner

3. Tel: 010-63611911

4. DingTalk: "JA" Organisation - Workbench - Integrity Report

5. QQ: 3476840246

6. WeChat: LianJieJA

7. Email: antifraud@jasolar.com

8. Mail: JA Audit Committee, No. 8 Building, Nuode Center, Fengtai District, Beijing

9. Overseas Reporting Channel: SpeakUp platform



During the reporting period, there were no confirmed incidents of conflicts of interest, money laundering, insider trading, or unfair competition at the Company level, and no ongoing disputes. There was one case of personal bribery involving an employee, which was concluded, and the individual involved was sentenced in accordance with the law.



Building a Culture of Business Ethics and Compliance

To promote integrity in business operations across the industry, JA has joined industry organizations such as the Enterprise Anti-Fraud Alliance and the Trust and Integrity Enterprise Alliance. It has also co-hosted an offline anti-fraud communication forum with renowned enterprises in the photovoltaic (PV) industry to jointly build a clean and compliant industry chain environment with partners.

The Company places great importance on compliance and integrity building, conducting anti-bribery and anti-corruption education for employees on professional integrity. It achieves full employee coverage through diverse formats such as special content on "SpeakUp" and educational films on integrity, ensuring that the culture of integrity is deeply ingrained. In terms of compliance training for antitrust and anti-unfair competition, specialized training is provided for personnel in high-risk positions such as procurement, sales, operations, and legal compliance. Relevant content is also included in the mandatory course package for new employees, ensuring key coverage for high-risk groups and new hires. Through systematic training on regulations and immersive cultural advocacy, the Company continuously fosters a work atmosphere of uprightness, integrity, and lawfulness, integrating the concepts of integrity and compliance into the daily conduct of employees and laying a solid moral foundation for the Company's sustainable development.

Multi-level and Diversified Publicity and Education Aactivities Conducted by the Company in 2025

Dimension	Specific Initiatives
Integrity Survey and Assessment	A special survey on the integrity environment was conducted for all employees. Participants were randomly selected using digital tools and received integrity-themed merchandise. A total of 5,760 valid questionnaires were collected, providing a basis for identifying integrity risks and strengthening the foundation of integrity.
Offline Integrity Publicity Activities at Manufacturing Bases	Offline integrity publicity activities were organized at manufacturing bases such as Xingtai and Baotou. Through engaging formats like "self-study + quiz challenges" and team competitions, the concept of integrity was promoted deep into the front lines of production.
Integrity-Themed Cultural Projects	To celebrate the Company's 20th anniversary, the "520 - I Love Integrity: Integrity Declaration Collection" campaign was launched. A total of 1,141 integrity declarations for various positions were collected, strengthening employees' self-awareness in fulfilling their commitments. Released self-produced micro-films on integrity, <i>One Step Away</i> and <i>Guarding the Heart</i>, using cautionary case studies to enhance awareness of integrity risk prevention and control. These films were screened at all manufacturing bases and received positive feedback. Innovatively used AI technology to generate comics on the theme of the "Five Strict Prohibitions of Integrity", lowering the barrier to understanding and increasing engagement among younger employees through a vivid format.
Specialised Integrity Training and Collaboration	In February 2025, integrity training for managers was held at the Yangzhou Manufacturing Base; in March, a special training session on <i>Protection of Corporate Internal Information and Trade Secrets</i> was conducted; in November, the course <i>Upholding Integrity, Walking the Path of Compliance</i> was launched on the Yidian Zhishi Platform; and in December, integrity training covering Chinese and Vietnamese employees of all ranks was held at the Vietnam Manufacturing Base.



Integrity Environment
Survey Poster



The "520 - I Love Integrity:
Integrity Declaration Collection"
Campaign and Online Voting



Integrity Guessing Game Activity at the Baotou
Manufacturing Base



Integrity Questionnaire Survey at the Xingtai
Manufacturing Base



Integrity Training for Managers at the
Yangzhou Manufacturing Base



AI-generated Comics on Integrity



Premiere of the New
Integrity Micro Film
One Step Away



Official Premiere of
the Integrity Micro-film
Guarding the Heart



Most Influential Integrity Culture Award

Trust and Integrity Enterprise Alliance



Star of Integrity

Enterprise Anti-Fraud Alliance



"First Prize" in the 4th Anti-Fraud Micro-Video Competition



2025 Excellent Practice Case for Internal Control of Listed Companies

China Association for Public Companies



Key Performance



In 2025, the Company:

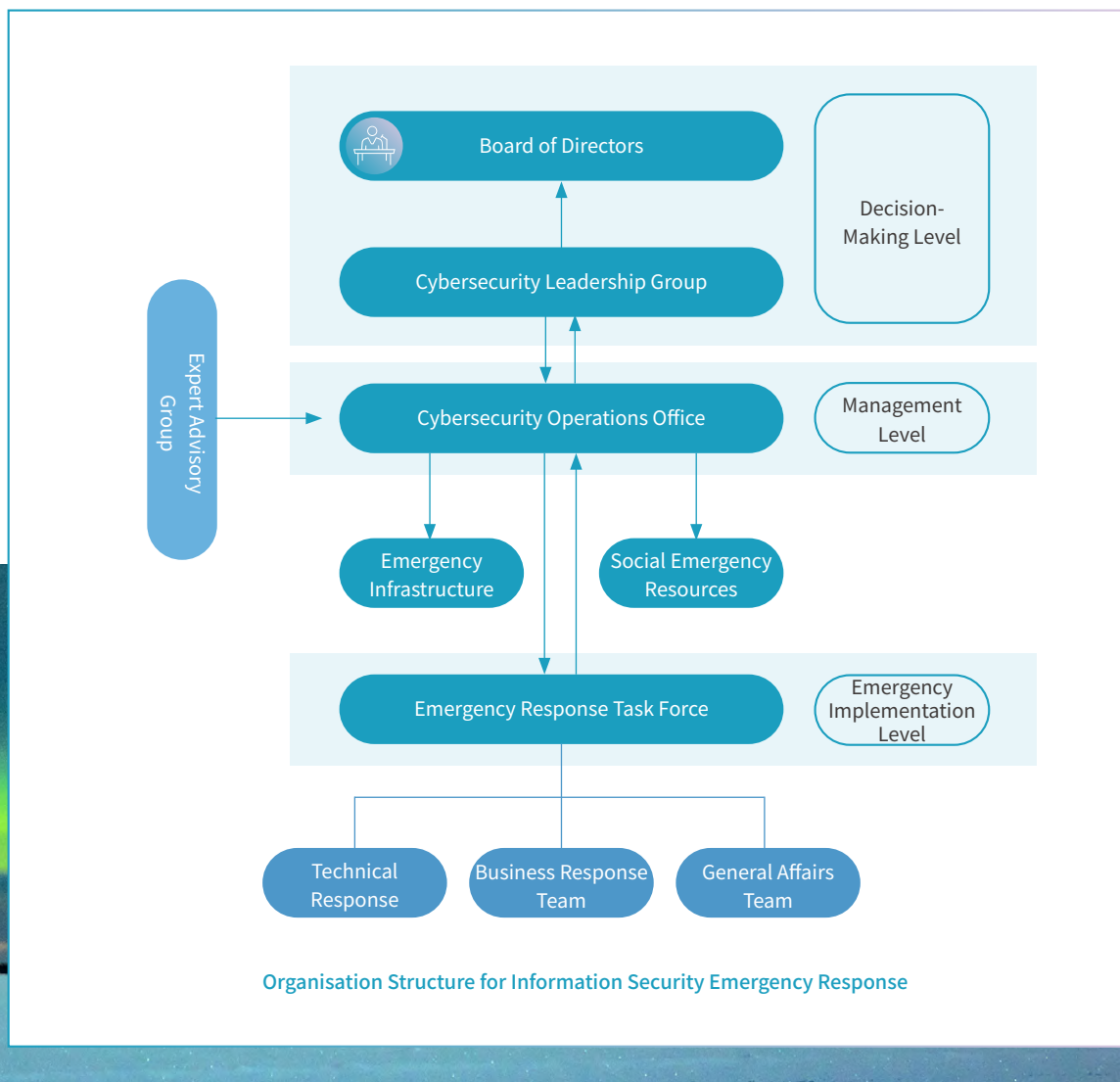
Conducted **207** training sessions on business ethics and anti-corruption, with a total of **46,665** participant attendances.

Information Security and Privacy Protection

Information Security and Privacy Protection Management System

The Company places great importance on information security and privacy protection, strictly adhering to domestic regulations such as the *Personal Information Protection Law of the People's Republic of China*, the *Data Security Law of the People's Republic of China*, and the *Cybersecurity Law of the People's Republic of China*, as well as relevant international requirements like the EU's General Data Protection Regulation (GDPR). In line with its business characteristics and operational realities, the Company has formulated internal rules and regulations including the *Information Security Management Procedures*, the *Information Security and Privacy Management Policy*, and the *Trade Secret Management Measures* to build a multi-layered, end-to-end management system. During the reporting period, the Company obtained both ISO 27001 Information Security Management System and ISO 27701 Privacy Information Management System certifications.

The Company's Board of Directors and executive management actively participate in the formulation and review of information security and cybersecurity policies. They have also established management objectives such as refining relevant policies and the information security emergency response management framework, conducting third-party assessments and certifications, and preventing information security breaches.



Information Security and Privacy Protection Management Measures

In managing the entire data lifecycle, the Company operates on principles such as lawful authorization (obtaining customer opt-in consent) and data minimization to implement standardized, end-to-end control over data collection, storage, use, sharing, transmission, and the safeguarding of data subject rights. Through measures like classified and tiered storage, access authorization, log retention, and notification of the use of collected information, we effectively protect personal information security and privacy. Leveraging comprehensive technical controls combined with risk operations and assurance mechanisms, we regularly identify privacy requirements and embed control measures in scenarios such as business changes, system development, and legal updates. We also conduct compliance gap and risk analyses for high-risk personal information processing activities to maintain business continuity. The Company conducts annual information security risk assessments covering 100% of all workplaces/departments, continuously improving its information security system, establishing a closed-loop management system, and promoting awareness among all employees to dynamically monitor and respond to information security threats, thereby systematically protecting the Company's information assets and the privacy rights of related parties.

Daily Protection Measures for Information Security and Privacy

Dimension	Specific Measures	Dimension	Specific Measures
Asset, Physical, and Environmental Security	Identifying high-value information assets and implementing classified, tiered, and differentiated security protection. Protecting secure areas and facilities through measures such as access control, surveillance, and physical isolation.	Emergency Drills	Formulating an emergency response plan for personal information security incidents and conducting emergency training and drills at least twice per year. In 2025, the Company conducted multiple emergency drills, including failover tests for core equipment on main links, drills for core equipment upgrades and bypass operations, data center fire safety drills, and emergency drills for major server downtime and database service interruptions, comprehensively enhancing our emergency response capabilities.
Network Security	Secure area isolation, least-privilege access control, intrusion prevention deployment, and strict access management.	Third-Party Risk Management	Assessing the security capabilities of partners, signing a <i>Mutual Confidentiality Agreement</i> with suppliers, and regularly reviewing service delivery performance. Providing security training on data center safety, fire safety, and network access control for on-site suppliers, and requiring long-term resident suppliers to sign a <i>Cybersecurity Commitment Letter</i> . In 2025, the Company conducted information security due diligence on five partner suppliers.
System and Endpoint Security	Standardized security configuration, strict permission management, timely patch and vulnerability analysis and remediation, specialized protection for industrial control systems, and source code security control. In 2025, the Company conducted privacy risk assessments for systems involving sensitive data (such as the EHR system).	Reporting Channels	All employees are personally responsible for information security. Staff can report information security incidents, system vulnerabilities, or suspicious activities through three internal channels: the DingTalk platform, email, and the 1800 customer service line.
Backup and Recovery	Formulating and testing data backup strategies, implementing off-site backups for core systems, and conducting regular recovery drills.		
Data Access	To ensure data integrity and security, we have established a security detection and defense mechanism for personal endpoint data, implemented real-time monitoring and encryption for critical data traffic, and conducted specialized inspections of key data and file formats.		

Awareness Training and Culture

Integrating privacy and information security into the all-staff training system, regularly disseminating information on regulations and compliance guidelines, establishing a complaint and whistle-blowing mechanism, and encouraging supervision.

In 2025, the Company conducted specialized information security awareness training for all employees. The training covered security awareness, email and password security, social engineering attacks, phishing emails, ransomware prevention, IT system and endpoint security standards, use of encryption software, account permission control, industrial control security, physical and network security of data centers, data protection, emergency response, and case studies. A total of 32 sessions were held, reaching 34,084 participants and achieving 100% coverage of all employees required to attend the respective awareness training.

Continuous Monitoring and Improvement

Continuously monitoring and driving system optimization through methods such as daily inspections, log analysis, capacity assessments, and system audits.

In 2025, the Company successfully passed two internal audits (including internal audits of IT infrastructure and the information security management system) and four external audits (including external audits of IT infrastructure and the information security management system). All relevant reviews and audits achieved 100% coverage of all workplaces/departments across the Group.

Information Security and Privacy Protection Targets	Targets Achievement in 2025	
Zero customer privacy complaints and zero customer privacy breaches	0	✓
Zero major information security incidents	0	✓
100% employee coverage for information security training	100%	✓

Key Performance

In 2025, the Company:

Number of substantiated complaints regarding breaches of customer privacy and the loss of customer data was

0

incidents of customer privacy leakage

0 confirmed information security breaches

0 litigation cases related to information security

A total of 32 information security training sessions were held,

34,084 covering participants



Appendix

Key Performance Table

Indicators	Unit	2023	2024	2025
Economic Performance				
Operating Income	RMB 10 ⁸	815.56	701.21	491.29
Shipment Of Cells And Modules	GW	57.09	79.45	69.56
Environmental Management System				
Non-compliance with Environmental Laws and Regulations				
Amount of Fines	RMB 10 ⁴	0	0	0
Number of Incidents	case	0	0	0
Number of Cases Brought through Dispute Resolution Mechanisms	case	0	0	0
Environmental liabilities at the end of the year	RMB 10 ⁴	0	0	0
Energy Management				
Energy Consumption				
Comprehensive Energy Consumption ¹	tce	799,359.32	1,059,002.77	752,328.54
Electricity Consumption	MWh	6,472,368.61	8,553,357.57	5,988,721.01
Natural Gas Consumption	10 ⁴ m ³	107.85	334.75	115.11
Coal Consumption	tonne	0	0	0
Diesel Consumption (burning of stationary source)	tonne	15.64	6.23	5.19
Diesel Consumption (burning of mobile source)	tonne	338.56	187.78	54.67
Gasoline Consumption	tonne	231.29	158.70	127.37
LPG Consumption	tonne	6.09	34.54	12.76
Heating Consumption	GJ	46,981.63	90,135.92	428,869.20
LNG Consumption	tonne	0.54	/	/

¹The calculation of comprehensive energy consumption is based on the *General Rules for Calculation of the Comprehensive Energy Consumption* (GB/T 2589-2020), covering both direct energy sources such as natural gas, diesel, gasoline, liquefied petroleum gas, and liquefied natural gas, and indirect energy sources such as electricity and thermal energy.

Indicators	Unit	2023	2024	2025
Total Energy Consumption (Non-renewable Energy)	tce	579,009.62	697,786.40	453,902.92
Total Energy Consumption (Renewable Energy)	tce	220,349.70	361,216.37	298,425.62
Electricity Consumption	MWh	6,472,368.61	8,553,357.57	5,988,721.01
Market-based Purchase of Green Electricity	MWh	1,725,983.91	2,747,168.56	2,143,665.72
Other Purchased Electricity	MWh	4,679,449.96	5,614,249.56	3,560,522.35
In-plant Distributed Green Electricity Consumption	MWh	66,934.74	191,939.45	284,532.95
Clean Energy Consumption	MWh	-	2,975,333.85	2,440,655.19
Solar Energy Consumption	MWh	-	191,939.45	284,532.95
Percentage of Solar Energy Consumption	%	-	6.45	11.66
Natural Gas Consumption	MWh	-	36,225.84	12,456.52
Percentage of Natural Gas Consumption	%	-	1.22	0.51
Other Clean Energy Consumption	MWh	-	2,747,168.56	2,143,665.72
Percentage of Other Clean Energy Consumption	%	-	92.33	87.83
Energy Intensity				
Comprehensive Energy Consumption Intensity	tce/MW	14.00	13.33	10.82
Scale of Self-owned PV Station	MW	2,165	3,700	2,854
Water Resources Use and Management				
Water Withdrawal				
Total Water Withdrawal	m ³	30,924,897.90	41,276,283.98	23,450,292.80
<i>Water Withdrawal by Source</i>				
Municipal Water	m ³	28,885,382.90	40,329,323.98	22,906,090.80
Rainwater Collected and Stored Directly by Enterprises	m ³	36,027.00	84,200.00	340,636.00
GroundWater	m ³	2,003,488.00	573,602.00	3,010.00
Others (Condensate Water)	m ³	7,395,522.00	289,158.00	200,556.00
Total Water Withdrawal Intensity	m ³ /MW	541.65	519.54	337.11

Indicators	Unit	2023	2024	2025
Water Discharge				
Total Wastewater Discharge	m ³	23,618,520.50	32,409,734.94	15,473,077.75
<i>By Discharge Destination</i>				
Discharged to Sewage Pipes	m ³	23,618,520.50	32,409,734.94	15,471,222.95
Others ¹	m ³	-	-	1,854.80
Water Consumption				
Total Water Consumption²	m ³	7,306,377.41	8,866,549.04	7,977,215.05
Water Resources Recycling and Use				
Water from Alternative Sources	m ³	-	1,944,656.00	1,950,154.00
Purchased Recycled Water	m ³	-	1,544,298.00	1,408,962.00
Harvested Rainwater	m ³	-	84,200.00	340,636.00
Condensate Water	m ³	-	316,158.00	200,556.00
Recycled Water ³	m ³	8,759,573.59	12,267,217.00	11,418,140.38
Percentage of Water from Alternative Sources ⁴	%	-	27	38
Percentage of Recycled Water ^{5 6}	%	22	23	33
Ultrapure Water				
Ultrapure Water Consumption	m ³	-	24,574,321.66	11,464,231.00
Emissions and Waste Management				
Waste Generation and Recycling				
Amount of Hazardous Waste Generated⁷	tonne	2,194.84	9,956.96	2,567.07
Hazardous Waste Intensity ⁷	tonne/MW	0.04	0.13	0.04
Amount of Non-hazardous Waste Generated⁷	tonne	236,509.31	379,846.32	243,145.70
Non-hazardous Waste Intensity ⁷	tonne/MW	0.29	4.78	3.50
Amount of Waste Recycled	tonne	171,700.77	338,831.41	237,522.21
Amount of Hazardous Waste Recycled ⁷	tonne	231.51	469.45	286.59
Amount of Non-hazardous Waste Recycled ⁷	tonne	171,469.26	338,361.96	237,235.62

¹Transported and treated by a third-party wastewater treatment plant, and then recycled for reuse. ²According to GRI 303-5, water consumption = water withdrawal - water discharge. ³The statistical scope and measurement method for water resource recycling volume have been adjusted this year to include reclaimed water reuse and process cooling water (PCW). ⁴Percentage of water from alternative sources = (amount of water from alternative sources + recycled amount of water resources) / (water withdrawal + recycled amount of water resources × 100%). ⁵Recycling rate of water resources = Recycled amount of water resources / (water withdrawal + recycled amount of water resources) × 100%. ⁶In 2025, JA has optimized the calculation method for the water resource recycling rate and retrospectively adjusted the historical data for 2023 to ensure comparability. ⁷JA has optimized its statistical scope and adjusted its 2024 data accordingly, based on the latest hazardous waste classification regulations and its actual production and operations.

Indicators	Unit	2023	2024	2025
Hazardous Waste				
Hazardous Waste Directed to Disposal¹	tonne	-	9,917.14	2,554.20
<i>By Disposal Method</i>				
Landfilling	tonne	-	-	0.30
Incineration (with energy recovery)	tonne	-	122.96	333.59
Incineration (without energy recovery)	tonne	-	9,241.39	1,214.85
Recycling ²	tonne	231.51	469.45	286.59
Other disposal operations	tonne	-	62.30	-
Unknown method ³	tonne	-	21.04	718.87
Non-hazardous Waste				
Non-hazardous Waste Directed to Disposal⁴	tonne	-	379,916.48	243,144.70
<i>By Disposal Method</i>				
Landfilling	tonne	-	4,877.98	1,128.98
Incineration (with energy recovery)	tonne	-	18,658.90	3,883.82
Incineration (without energy recovery)	tonne	-	17,135.00	775.24
Recycling ⁵	tonne	171,469.26	338,361.96	237,235.62
Other disposal operations	tonne	-	658.92	-
Unknown method	tonne	-	223.72	121.04
Addressing Climate Change				
GHG Emissions				
Total GHG Emissions (Scope 1+Scope 2)	tCO ₂ e	2,871,963	3,327,959	2,396,266
Scope 1: Direct GHG emissions	tCO ₂ e	109,178	107,171	73,864
Scope 2: Indirect GHG Emissions from imported energy	tCO ₂ e	2,762,785	3,220,788	2,322,402
GHG emission intensity in operational scope	tCO ₂ e/MW	50.30	41.89	34.45
Scope 3: Other Indirect GHG Emissions	tCO ₂ e	24,351,855	32,233,663	19,894,355

¹JA has optimized its statistical scope and adjusted its 2024 data accordingly, based on the latest hazardous waste classification regulations and its actual production and operations. ²JA has optimized its statistical scope and adjusted its 2024 data accordingly, based on the latest hazardous waste classification regulations and its actual production and operations. ³The amount of hazardous waste involved in this data all comes from overseas manufacturing base. The waste is transported and disposed of by qualified third parties, and the final disposal method cannot currently be traced. ⁴JA has optimized its statistical scope and adjusted its 2024 data accordingly, based on the latest hazardous waste classification regulations and its actual production and operations. ⁵JA has optimized its statistical scope and adjusted its 2024 data accordingly, based on the latest hazardous waste classification regulations and its actual production and operations.

Indicators	Unit	2023	2024	2025
Employment				
Employment				
Number of Employees	person	50,258	37,289	25,260
<i>By Gender</i>				
Male Employees	person	33,320	26,692	17,884
Female Employees	person	12,827	10,597	7,376
<i>By Employment Type</i>				
Full-time Employees	person	46,147	35,935	25,177
Outsourced/Dispatched Labor	person	4,097	1,350	43
Part-time Employees ¹	person	14	4	40
<i>By Age</i>				
Under 30	person	19,634	13,716	7,914
30-50	person	26,311	23,282	17,100
Over 50	person	202	291	246
<i>By Rank</i>				
Senior Management Employees	person	-	61	55
Middle Management Employees	person	-	905	1,454
Junior Management Employees	person	-	1,325	1,166
Front-line Employees	person	-	34,998	22,585
<i>By Location</i>				
Domestic Employees	person	42,706	34,757	23,735
Overseas Employees	person	3,441	2,532	1,525
<i>By Nationality</i>				
Chinese Employees	person	42,706	34,911	23,968
Overseas Employees	person	3,441	2,378	1,292
Percentage of Chinese Management Employees	%	-	99.53	93.42
Percentage of Overseas Management Employees	%	-	0.47	6.58

¹It refers to employees working on a part-time basis (including interns).

Indicators	Unit	2023	2024	2025
Recruitment				
Number of New Employees	person	-	14,907	3,232
<i>By Gender</i>				
Male Employees	person	-	11,303	2,451
Female Employees	person	-	3,604	781
<i>By Age</i>				
Under 30	person	-	9,240	1,581
30-50	person	-	5,661	1,641
Over 50	person	-	6	10
<i>By Rank</i>				
Senior Management Employees	person	-	6	8
Middle Management Employees	person	-	81	90
Junior Management Employees	person	-	163	66
Front-line Employees	person	-	14,657	3,068
Number of Employees Filling Vacant Positions through Internal Recruitment	person	-	733	753
<i>By Gender</i>				
Male Employees	person	-	587	604
Female Employees	person	-	146	149
<i>By Age</i>				
Under 30	person	-	274	230
30-50	person	-	459	523
Percentage of Employees Filling Vacant Positions through Internal Recruitment	%	-	5	23
Employee Rights and Interests				
Insurance Coverage Rate ¹	%	100	100	100
Labor Contract Signing Rate	%	100	100	100
Percentage of Employees Covered by Trade Union	%	100	100	100

¹It covers only the full-time employees.

Indicators	Unit	2023	2024	2025
Employee Training				
Employee Training				
Average Hours of Training per Employee	hour	56.28	33.00	24.94
<i>By Gender</i>				
Male Employees	hour	55.70	33.00	25.64
Female Employees	hour	57.80	34.00	23.25
<i>By Rank</i>				
Senior Management Employees	hour	116.00	7.00	11.10
Middle Management Employees	hour	111.00	43.00	33.66
Junior Management Employees	hour	-	65.00	46.50
Front-line Employees	hour	43	31.00	23.30
Employee Training Coverage Rate	%	99	100	100
<i>By Gender</i>				
Male Employees	%	-	100	100
Female Employees	%	-	100	100
<i>By Rank</i>				
Senior Management Employees	%	-	100	100
Middle Management Employees	%	-	100	100
Junior Management Employees	%	-	100	100
Front-line Employees	%	-	100	100
Professional Training				
Internal Professional Training	session	31,732	8,913	16,182
	attendance	610,776.00	680,024	316,204
	hour	169,667.00	160,120	23,263

Indicators	Unit	2023	2024	2025
Funded External Professional Training	session	5,270	1,426	202
	attendance	11,730	1,088	999
	hour	223,442.00	175,370.94	13,858.50
	RMB 10 ⁴	592.00	321.98	43.23
Career Development				
Percentage of Employees Accepting Regular Performance and Career Development Reviews	%	100	100	100
Diversity and Equal Opportunity				
Female Representation in Management				
Percentage of Females in Management Positions	%	-	-	25.60
Female Senior Management Employees	%	-	-	12.73
Female Middle Management Employees	%	-	-	23.59
Female Junior Management Employees	%	-	-	28.73
Other Diversity Indicators for Employees				
Minority Employees	person	4,080	1,857	819
Disabled Employees	person	32	42	66
Pay Equity				
Percentage of Average Pay of Female Employees to that of Male Employees ¹	%	-	89	92
Occupational Health and Safety				
Occupational Injuries				
Employee Absenteeism Rate ²	%	1.55	3.14	1.56
Number of Fatalities due to Occupational Injuries (JA Solar and Contractors)	person	1	0	0
Fatality Rate (FTLR)	-	0.000022	0	0
Lost-Time Injury Frequency Rate (LTIFR) ³	-	0.29	0.30	0.31

¹It covers only the frontline employees. ²Employee Absenteeism Rate = Days of Absence / Total Planned Working Days x 100. ³It covers only the main material manufacturing bases.

Indicators	Unit	2023	2024	2025
Supply Chain Management				
<i>Number of Suppliers</i>				
Number of Suppliers¹	supplier	-	975	851
<i>By Region</i>				
Number of Suppliers in Chinese Mainland	supplier	-	935	804
Number of Suppliers from Hong Kong, Macau, Taiwan, and Overseas	supplier	-	40	47
<i>By Importance</i>				
Number of Significant Suppliers	supplier	-	110	225
Number of Other Suppliers	supplier	-	865	626
Number of Tier 1 Suppliers	supplier	-	975	851
Percentage of First-level Suppliers in Total Procurement	%	-	100	100
Negative Environmental Impacts in the Supply Chain and Actions Taken				
Number of Suppliers that Have Undergone Social and Environmental Impact Assessment ²	supplier	220	104	93
Number of Suppliers Identified with Actual and Potential Significant Negative Environmental Impacts	supplier	0	0	0
Number of Suppliers Identified with Actual and Potential Significant Negative Social Impacts	supplier	0	0	0
Local Procurement				
Percentage of Procurement Expenditure from Local Suppliers (Same Province)	%	-	29	23
Percentage of Procurement Expenditure from Local Suppliers (Same Country)	%	-	91	82

¹Only includes production material suppliers in 2025.

²This indicator fluctuates between different years, mainly due to the combined influence of multiple operational and management factors. This is within the normal range of fluctuation and does not reflect any substantial changes in the scope of the assessment.

Indicators	Unit	2023	2024	2025
R&D Innovation and Intellectual Property Right Protection				
R&D Innovation				
R&D Expenses	RMB 10 ⁸	44.46	37.11	29.58
Number of Authorized Intellectual Property Rights	item	1,263	1,899	2,286
Number of Newly Authorized Intellectual Property Rights	item	138	866	444
Customer Rights and Interests Protection				
Customer Satisfaction Rate	score	95.99	94.80	94.30
Number of Product Recall Incidents	case	1.00	0	0
Percentage of Products Recalled due to Health and Safety Reasons	%	0.00	0	0
Community Investment				
Public Welfare Donations	RMB 10 ⁴	20.56	70.36	15.54
Anti-corruption and Business Ethics				
Percentage of Operation Sites that have Accepted Corruption Risk Assessment	%	100	100	100
Information Security and Privacy Protection				
Information Security Incidents				
Number of Litigation Cases Related to Information Security	case	0	0	0
Customer Privacy Protection				
Number of Substantiated Complaints of Invasion of Customer Privacy and Loss of Customer Data	case	0	0	0

Report Content Index

Index in the *Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange – Sustainability Report (For Trial Implementation)*

Chapter	Corresponding Clause	Corresponding Chapter
Disclosure Framework for Sustainability Information		
	Article 11-Article 19	About This Report, About JA, Sustainability Management, Double Materiality Analysis
Environmental Disclosure		
Section 1: Climate Response	Article 20-Article 28	Addressing Climate Change, Practising Green Operations
Section 2: Pollution Control and Ecosystem Protection	Article 29	Improving Environmental Management, Practising Green Operations
	Article 30	Practising Green Operations
	Article 31	Practising Green Operations
	Article 32	Practising Green Operations
	Article 33	Improving Environmental Management
Section 3: Resource Utilization and Circular Economy	Article 34	Practising Green Operations
	Article 35	Practising Green Operations
	Article 36	Practising Green Operations
	Article 37	Practising Green Operations, Creating a Circular Economy
Social Disclosure		
Section 1: Rural Revitalization and Social Contributions	Article 38	Practising Social Responsibility
	Article 39	Practising Social Responsibility
	Article 40	Practising Social Responsibility
Section 2: Innovation-Driven Development and Ethics of Science and Technology	Article 41	Product R&D and Innovation
	Article 42	Product R&D and Innovation
	Article 43	N/A ¹

¹JA has not yet engaged in scientific research, technology development, or other activities in sensitive fields such as life sciences and artificial intelligence. We will also continuously pay attention to the management of technological ethics in its future operations.

Chapter	Corresponding Clause	Corresponding Chapter
Section 3: Suppliers and Customers	Article 44	Customer Rights Protection, Sustainable Supply Chain Management
	Article 45	Sustainable Supply Chain Management
	Article 46	For the balance of the Company's accounts payable (including notes payable) at the end of the reporting period, please refer to the 2025 Annual Report of JA Solar Technology Co., Ltd.
	Article 47	Product Quality and Safety, Customer Rights Protection
	Article 48	Information Security and Privacy Protection
Section 4: Employees	Article 49	Protecting Employee Rights and Interests, Employee Training and Development, Occupational Health and Safety
	Article 50	Protecting Employee Rights and Interests, Employee Training and Development
Disclosure of Sustainability-Related Governance Information		
Section 1: Sustainability-related Governance Mechanisms	Article 51	Sustainability Governance
	Article 52	Sustainability Governance
	Article 53	Stakeholder Engagement
Section 2: Business Practices	Article 54	Corporate Governance , Compliance and Risk Management, Anti-corruption and Business Ethics
	Article 55	Anti-corruption and Business Ethics
	Article 56	Compliance and Risk Management, Anti-corruption and Business Ethics
Supplementary Provisions and Interpretation		
	Article 57	Report Content Index
	Article 58	Independent Assurance Report

GRI Sustainability Reporting Standards (2021) Index

Statement of Use	JA prepared its 2025 Sustainability and ESG Report for the period from 1 January to 31 December 2025 with reference to the GRI Standards
GRI 1 Used	GRI 1: Foundation 2021

GRI Standard	Disclosure	Location
GRI 2: General Disclosures	2-1 Organisational details	About JA
	2-2 Entities included in the organisation's sustainability reporting	About This Report
	2-3 Reporting period, frequency and contact point	About This Report
	2-4 Restatements of information	Key Performance Table
	2-5 External assurance	Independent Assurance Report
	2-6 Activities, value chain and other business relationships	About JA, Stakeholder Engagement, Sustainable Supply Chain Management, Customer Rights Protection
	2-7 Employees	Protecting Employee Rights and Interests, Key Performance Table
	2-8 Workers who are not employees	Key Performance Table
	2-9 Governance structure and composition	Sustainability Governance, Corporate Governance
	2-10 Nomination and selection of the highest governance body	Corporate Governance
	2-11 Chair of the highest governance body	Corporate Governance
	2-12 Role of the highest governance body in overseeing the management of impacts	Sustainability Governance, Corporate Governance
	2-13 Delegation of responsibility for managing impacts	Sustainability Governance, Corporate Governance
	2-14 Role of the highest governance body in sustainability reporting	Sustainability Governance
	2-15 Conflicts of interest	Corporate Governance, Anti-corruption and Business Ethics
	2-16 Communication of critical concerns	Stakeholder Engagement, Double Materiality Analysis
	2-17 Collective knowledge of the highest governance body	Sustainability Governance, Corporate Governance
	2-18 Performance evaluation of the highest governance body	Sustainability Governance, Corporate Governance
	2-19 Remuneration policies	Sustainability Governance, Corporate Governance, Employee Training and Development
	2-20 Process for determining remuneration	Corporate Governance, Employee Training and Development

GRI Standard	Disclosure	Location
	2-21 Annual total compensation ratio	/
	2-22 Statement on sustainable development strategy	Sustainability Governance
	2-23 Policy commitments	Please Refer to the Relevant Chapters of This Report.
	2-24 Embedding policy commitments	Please Refer to the Relevant Chapters of This Report.
	2-25 Processes to remediate negative impacts	Sustainable Supply Chain Management, Protecting Employee Rights and Interests
	2-26 Mechanisms for seeking advice and raising concerns	Stakeholder Engagement , Anti-corruption and Business Ethics, Protecting Employee Rights and Interests
	2-27 Compliance with laws and regulations	Please Refer to the Relevant Chapters of This Report.
	2-28 Membership associations	2025 Sustainability Impact Map, Product R&D and Innovation
	2-29 Approaches to stakeholder engagement	Stakeholder Engagement
	2-30 Collective bargaining agreements	Protecting Employee Rights and Interests
GRI 3: Material Topics	3-1 Process for determining material topics	Double Materiality Analysis
	3-2 List of material topics	Double Materiality Analysis
	3-3 Management of material topics	Double Materiality Analysis
GRI 101: Biodiversity 2024	101-1 Policies to halt and reverse biodiversity loss	Practising Green Operations
	101-2 Management of biodiversity impacts	Practising Green Operations
	101-3 Access and benefit-sharing	/
	101-4 Identification of biodiversity impacts	Practising Green Operations
	101-5 Locations with biodiversity impacts	Practising Green Operations
	101-6 Direct drivers of biodiversity loss	/
	101-7 Changes to the state of biodiversity	/
	101-8 Ecosystem services	/
GRI 201: Economic Performance	201-1 Direct economic value generated and distributed	Key Performance Table
	201-2 Financial implications and other risks and opportunities due to climate change	Addressing Climate Change
	201-3 Defined benefit plan obligations and other retirement plans	/
	201-4 Financial assistance received from government	/

GRI Standard	Disclosure	Location
GRI 202: Market Presence	202-1 Ratios of standard entry-level wage by gender compared to local minimum wage	/
	202-2 Proportion of senior management hired from the local community	Key Performance Table
GRI 203: Indirect Economic Impacts	203-1 Infrastructure investments and services supported	Practising Social Responsibility
	203-2 Significant indirect economic impacts	Product R&D and Innovation, Practising Social Responsibility
GRI 204: Procurement Practices	204-1 Proportion of spending on local suppliers	Key Performance Table
GRI 205: Anti-corruption	205-1 Operations assessed for risks related to corruption	Anti-corruption and Business Ethics, Key Performance Table
	205-2 Communication and training about Anti-corruption policies and procedures	Anti-corruption and Business Ethics, Key Performance Table
	205-3 Confirmed incidents of corruption and actions taken	Anti-corruption and Business Ethics
GRI 206: Anti-Competitive Behaviour	206-1 Legal actions for Anti-competitive behaviour, Anti-trust, and monopoly practices	Anti-corruption and Business Ethics
GRI 207: Tax	207-1 Approach to tax	Compliance and Risk Management
	207-2 Tax governance, control, and risk management	Compliance and Risk Management
	207-3 Stakeholder engagement and management of concerns related to tax	Compliance and Risk Management
	207-4 Country-by-country reporting	/
GRI 301: Materials	301-1 Weight or volume of materials used	Creating a Circular Economy
	301-2 Recycled input materials used	Creating a Circular Economy
	301-3 Reclaimed products and their packaging materials	Creating a Circular Economy
GRI 302: Energy	302-1 Energy consumption within the organisation	Key Performance Table
	302-2 Energy consumption outside the organisation	Key Performance Table
	302-3 Energy intensity	Practising Green Operations, Key Performance Table
	302-4 Reduction of energy consumption	Practising Green Operations, Creating a Circular Economy
	302-5 Reduction of energy requirements of products and services	Creating a Circular Economy
GRI 303: Water and Effluents	303-1 Interaction with water as a shared resource	Practising Green Operations, Key Performance Table
	303-2 Management of water discharge-related impacts	Practising Green Operations, Key Performance Table

GRI Standard	Disclosure	Location
	303-3 Water withdrawal	Practising Green Operations, Key Performance Table
	303-4 Water discharge	Practising Green Operations, Key Performance Table
	303-5 Water consumption	Practising Green Operations, Key Performance Table
GRI 305: Emissions	305-1 Direct (scope 1) GHG emissions	Addressing Climate Change, Key Performance Table
	305-2 Energy indirect (scope 2) GHG emissions	Addressing Climate Change, Key Performance Table
	305-3 Other indirect (scope 3) GHG emissions	Addressing Climate Change, Key Performance Table
	305-4 GHG emissions intensity	Addressing Climate Change, Key Performance Table
	305-5 Reduction of GHG emissions	Addressing Climate Change
	305-6 Emissions of ozone-depleting substances (ods)	/
	305-7 Nitrogen oxides (NOx), sulphur oxides (SOx), and other significant air emissions	Practising Green Operations, Key Performance Table
GRI 306: Waste	306-1 Waste generation and significant waste-related impacts	Practising Green Operations
	306-2 Management of significant waste-related impacts	Practising Green Operations
	306-3 Waste generated	Practising Green Operations, Key Performance Table
	306-4 Waste diverted from disposal	Practising Green Operations, Key Performance Table
	306-5 Waste directed to disposal	Practising Green Operations, Key Performance Table
GRI 308: Supplier Environmental Assessment	308-1 New suppliers that were screened using environmental criteria	Sustainable Supply Chain Management, Key Performance Table
	308-2 Negative environmental impacts in the supply chain and actions taken	Sustainable Supply Chain Management, Key Performance Table
GRI 401: Employment	401-1 New employee hires and employee turnover	/
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Employee Training and Development
	401-3 Parental leave	Employee Training and Development
GRI 402: Labor/Management Relations	402-1 Minimum notice periods regarding operational changes	/
Occupational Health and Safety	403-1 Occupational health and safety management system	Occupational Health and Safety
	403-2 Hazard identification, risk assessment, and incident investigation	Occupational Health and Safety
	403-3 Occupational health services	Occupational Health and Safety

GRI Standard	Disclosure	Location
	403-4 Worker participation, consultation, and communication on occupational health and safety	Occupational Health and Safety, Protecting Employee Rights and Interests
	403-5 Worker training on occupational health and safety	Occupational Health and Safety, Key Performance Table
	403-6 Promotion of worker health	Occupational Health and Safety, Employee Training and Development
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Occupational Health and Safety
	403-8 Workers covered by an occupational health and safety management system	Occupational Health and Safety
	403-9 Work-related injuries	Occupational Health and Safety, Key Performance Table
	403-10 Work-related ill health	Occupational Health and Safety
GRI 404: Training and Education	404-1 Average hours of training per year per employee	Employee Training and Development, Key Performance Table
	404-2 Programmes for upgrading employee skills and transition assistance programmes	Employee Training and Development
	404-3 Percentage of employees receiving regular performance and career development reviews	Employee Training and Development, Key Performance Table
GRI 405: Diversity and Equal Opportunity	405-1 Diversity of governance bodies and employees	Protecting Employee Rights and Interests , Key Performance Table
	405-2 Ratio of basic salary and remuneration of women to men	Key Performance Table
GRI 406: Non-Discrimination	406-1 Incidents of discrimination and corrective actions taken	Protecting Employee Rights and Interests
GRI 407: Freedom of Association and Collective Bargaining	407-1 Operations and suppliers where the right to freedom of association and collective bargaining may be at risk	Protecting Employee Rights and Interests , Key Performance Table
GRI 408: Child Labor	408-1 Operations and suppliers at significant risk for incidents of child labor	Employee Rights Protection, Sustainable Supply Chain Management
GRI 409: Forced or Compulsory Labor	409-1 Operations and suppliers with significant risk of incidents of forced or compulsory labor	Protecting Employee Rights and Interests , Sustainable Supply Chain Management
GRI 410: Security Practices	410-1 Security personnel trained in human rights policies or procedures	/
GRI 411: Rights of Indigenous Peoples	411-1 Incidents of violations involving rights of indigenous peoples	/
GRI 413: Local Communities	413-1 Operations with local community engagement, impact assessments, and development programmes	Practising Social Responsibility
	413-2 Operations with significant actual and potential negative impacts on local communities	Not Applicable

GRI Standard	Disclosure	Location
GRI 414: Supplier Social Assessment	414-1 New suppliers that were screened using social criteria	Sustainable Supply Chain Management
	414-2 Negative social impacts in the supply chain and actions taken	Sustainable Supply Chain Management, Key Performance Table
GRI 415: Public Policy	415-1 Political contributions	/
GRI 416: Customer Health and Safety	416-1 Assessment of the health and safety impacts of product and service categories	Product Quality and Safety, Key Performance Table
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Product Quality and Safety
GRI 417: Marketing and Labelling	417-1 Requirements for product and service information and labelling	Customer Rights Protection
	417-2 Incidents of non-compliance concerning product and service information and labelling	Customer Rights Protection
	417-3 Incidents of non-compliance concerning marketing communications	Customer Rights Protection
GRI 418: Customer Privacy	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Information Security and Privacy Protection, Key Performance Table

Sustainability Accounting Standards Board Standards Index

Topic	Code	Metric	Corresponding Chapter
Energy Management in Manufacturing	RR-ST-130a.1	(1) Total energy consumed, (2) percentage grid electricity and (3) percentage renewable	Practising Green Operations, Key Performance Table
Water Management in Manufacturing	RR-ST-140a.1	(1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	Practising Green Operations
	RR-ST-140a.2	Description of water management risks and discussion of strategies and practices to mitigate those risks	Practising Green Operations
Hazardous Waste Management	RR-ST-150a.1	(1) Amount of hazardous waste generated, (2) percentage recycled ¹	Key Performance Table
	RR-ST-150a.2	(1) Number and aggregate quantity of reportable spills, (2) quantity recovered ²	There were no leakage incidents occurred during the reporting period.
Ecological Impacts of Project Development	RR-ST-160a.1	(1) Number and (2) duration of project delays related to ecological impacts	There were no project delays related to ecological impacts occurred during the reporting period
	RR-ST-160a.2	Description of efforts in solar energy system project development to address community and ecological impacts	Practising Green Operations
Management of Energy Infrastructure Integration & Related Regulations	RR-ST-410a.1	Description of risks associated with integration of solar energy into existing energy infrastructure and discussion of efforts to manage those risks	Product R&D and Innovation, Addressing Climate Change, Practising Green Operations
	RR-ST-410a.2	Description of risks and opportunities associated with energy policy and its effect on the integration of solar energy into existing energy infrastructure	Product R&D and Innovation, Addressing Climate Change, Practising Green Operations, Compliance and Risk Management
Product End-of-life Management	RR-ST-410b.1	Percentage of products sold that are recyclable or reusable	/
	RR-ST-410b.2	(1) Weight of end-of-life material recovered, (2) percentage recycled	Creating a Circular Economy
	RR-ST-410b.3	Percentage of products by revenue that contain IEC 62474 declarable substances, arsenic compounds, antimony compounds, or beryllium compounds ³	/
	RR-ST-410b.4	Description of approach and strategies to design products for high-value recycling	Creating a Circular Economy
Materials Sourcing	RR-ST-440a.1	Description of the management of risks associated with the use of critical materials	Sustainable Supply Chain Management
	RR-ST-440a.2	Description of the management of environmental risks associated with the polysilicon supply chain	Sustainable Supply Chain Management
Activity Metric	RR-ST-000.A	Total capacity of photovoltaic (PV) solar modules produced	Key Performance Table
	RR-ST-000.B	Total capacity of completed solar energy system ⁴	Key Performance Table
	RR-ST-000.C	Total project development assets ⁵	/

¹Note to RR-ST-150a.1 – The entity shall disclose the legal or regulatory framework(s) used to define hazardous waste and recycled hazardous waste, and the amounts of waste defined in accordance with each applicable framework.

²Note to RR-ST-150a.2 – The entity shall discuss its long-term activities to remediate spills that occurred in years prior to the reporting period but for which remediation activities are ongoing.

³Note to RR-ST-410b.3 – The disclosure shall include a discussion of approach to managing the use of IEC 62474 declarable substances, arsenic compounds, antimony compounds or beryllium compounds.

⁴Note to RR-ST-000.B – Solar energy systems are defined as any system that converts sunlight into electrical energy, including "photovoltaic (PV) system" and "solar thermal electric systems". Completed systems are defined by the entity, consistent with its existing public disclosure of completed systems.

⁵Note to RR-ST-000.C – Project development assets are defined by the entity, consistent with its existing public disclosure of project development assets, regardless of terminology used by the entity (for example, "Project assets", "Project assets—plants and land", "Solar Energy Systems Held for Development and Sale"). At a minimum, project development assets include assets associated with solar energy systems under development or fully developed, owned by the entity, and held for sale or intended to be sold to a third party prior to the execution of a definitive sales agreement, and assets that consist primarily of capitalised costs incurred in connection with the development of solar energy systems.

Independent Assurance Report



Independent Assurance Statement

Introduction

TÜV Rheinland (Shanghai) Co., Ltd., a member of TÜV Rheinland Group (hereinafter "TÜV Rheinland" or "We"), was entrusted by JA Solar Technology Co., Ltd. (hereinafter "JA Solar" or "the Company") to conduct an independent third-party assurance of its 2025 Sustainability Report (hereinafter "Report"). The Report disclosed sustainability information of JA Solar for the fiscal year 2025 (from 1 January 2025 to 31 December 2025).

Responsibilities

JA Solar is not only responsible for the preparation of sustainability report and the collection and reporting of sustainability information in accordance with applicable reporting standards but also has the obligation to implement and maintain effective internal control of information and data to support the report compilation process.

TÜV Rheinland implements sustainability information assurance activities under a quality management system that complies with the requirements of the ISO/IEC 17029:2019 Standard and adheres to the TÜV Rheinland Global Code of Ethics and Compliance Program. Our assurance service follows the principles of independence and impartiality and does not participate in the preparation of the Report of JA Solar. The assurance project was implemented by a team with expertise and assurance experience in the corresponding sustainability issues. The role of TÜV Rheinland is to carry out independent assurance work in accordance with the assurance agreement and the agreed scope of assurance work, and to make independent and impartial professional judgments on sustainability reporting.

Assurance Standard

TÜV Rheinland undertook assurance work for specified performance indicators (see Appendix in this statement) and non-financial qualitative information (including materiality assessment, stakeholder engagement, topics management related to material impacts, risks and opportunities (IRO), etc.) selected by JA Solar in accordance with the AccountAbility AA1000 Assurance Standard 3rd edition (AA1000AS v3) on a Type-2 and Moderate level.

Assurance Objectives

The purpose of the assurance was to provide management of JA Solar and stakeholders concerned with the Company's sustainability information and performance with an independent view of the assurance, including that we review and assess the content of the report adherence to the AA1000AP (2018) Assurance Principles (including inclusivity, materiality, responsiveness and impact), and review and evaluate the reliability and quality of specified performance information.

Assurance Criteria

The following assessment criteria (including reporting frameworks or standards) were used in undertaking the work:

- Guidelines for Self-Regulatory Actions of Listed Companies on the Shenzhen Stock Exchange No. 17 - Sustainability Report (Trial) (hereinafter the "Guidelines of the Shenzhen Stock Exchange")
- Guidelines for Self-Regulatory Actions of Listed Companies on the Shenzhen Stock Exchange No. 3 - Preparation of Sustainability Reports (Revised in 2020)
- Global Sustainability Standards Board (GSSB) GRI Standard 2021
- The United Nations Sustainable Development Goals (SDGs)
- The United Nations Global Compact (UNGC) Ten Principles
- International Sustainability Standards Board (ISSB) International Financial Reporting Sustainability Disclosure Standards
- European Sustainability Reporting Standards (ESRS)
- Greenhouse Gas Accounting System Enterprise Accounting and Reporting Standards (GHG Protocol)
- Adherence to the AA1000AP AccountAbility Principles, i.e., *Inclusivity, Materiality, Responsiveness, and Impact*



Methodology

Our assurance activities and procedures include:

- Interviewing with management to understand and assess key processes, systems and internal controls for operations and sustainability management.
- Interviewing with key personnel responsible for sustainability execution to understand the non-financial information reporting system, including the collection, integration and reporting of specified performance data and non-financial qualitative information, and to evaluate the data integration process at the group level.
- Applying analytical procedures to review the reasonableness of the data.
- Testing the source of information based on the sampling principle to check the accuracy of the data.
- Reviewing the consistency and reliability of specified performance indicators and quantitative and qualitative information within assurance scope.
- Collecting and inspecting supporting evidence to assess the extent to which relevant disclosures within the scope of the assurance engagement and sustainability reporting support and adherence to AA1000AP assurance principles.
- Reporting assurance observations or recommendations to give the company's management an opportunity to correct errors before the assurance process is completed.

Limitations

TÜV Rheinland planned and executed the verification in accordance with the scope of the assurance agreed upon and obtained evidence information and necessary explanations to provide the basis for the conclusion of the assurance in accordance with the moderate level of AA1000AS v3. The nature and extent (scope) of the procedures involved in moderate level assurance engagement are lower than those required to obtain high level assurance.

Forward-looking information relates to events and actions that have not yet occurred and may never occur. Actual results are likely to be different because expected events often do not occur as expected. We did not guarantee the availability of forward-looking information.

The information and performance relating to the assurance is limited to the disclosure of the contents of this Report. Our assurance did neither cover annual financial reports and financial data and nor cover other topics or matters that are not related to sustainability topics beyond the scope of this assurance.

Conclusions

Based on the above assurance procedures implemented and the evidence obtained, we believe that:

- 2025 Sustainability Report of JA Solar adhered to the AA1000AP AccountAbility Principles.
- Sustainability information was prepared in accordance with Guidelines of the Shenzhen Stock Exchange and GRI Standards.
- Specified performance indicators (see Appendix) and non-financial qualitative information (including the assessment of material issues) within the scope of the assurance were evaluated and there were no material misstatements.

TÜV Rheinland shall not bear any liability or responsibility to a third party for perception and decision on JA Solar based on this Assurance Statement.

Adherence to the AA1000AP AccountAbility Principles

Inclusivity

JA Solar has identified stakeholder groups such as customers, government and regulators, shareholders and investors, suppliers and partners, executives and employees, media/NGOs/industry associations, and the community. The Company has established a stakeholder engagement mechanism and incorporated the opinions of different groups into the assessment of materiality issues and the consideration of adjusting or optimizing sustainability strategies.

Materiality

JA Solar conducted a double materiality analysis based on various factors (such as ESG capital market rating requirements and market trends) and stakeholder questionnaire survey results, including evaluating and prioritising issues from the two dimensions of "impact materiality" and "financial materiality". The issue matrix revealed the key topics of the year (e.g., product quality and safety, sustainable supply chain management, compliance and risk



management, climate change response, etc.) that are highly relevant to operations. Management has reviewed the results of the issue matrix and received approval from the Board.

Responsiveness

JA Solar's communication channels with key stakeholders are diversified, mainly including regular information disclosure, supplier training and empowerment, and reporting and graminac mechanisms, etc. Evidence showed that Company has set phased environmental and social targets and link ESG performance metrics to executive appraisals. This report adopted a four-pillar framework for disclosure of double material issues, as well as quantitative data on ESG key performance indicators (e.g., greenhouse gas emissions, energy, emissions and waste, water resources, employee management, occupational health and safety, etc.), to respond to the core concerns of stakeholders in a timely manner.

Impact

Evidence indicated that in 2025, JA Solar has focused on the assessment and management of compliance risks and emerging risks in key areas (such as anti-monopoly and anti-unfair competition, labour employment, anti-commercial bribery, etc.). The Company assessed the impacts, risks and opportunities of key issues of double materiality, such as response to climate change. The evidence showed that JA Solar adopted management measures and specific actions (such as technological innovation, supplier ESG and compliance incentives, etc.) to manage environmental and social impacts.

Disclosure of Specified Performance Information

TÜV Rheinland reached conclusions on the verification of reliability and quality of specified performance information (see Appendix) based on Type-2 and Moderate level assurance engagement:

- TÜV Rheinland observed that JA Solar has established and implemented relevant internal control systems and processes and taken measure to collect and aggregate reliable source data related to selected specific performance indicators for verification.
- During the verification process, all minor errors identified have been corrected. We believe that the data finally presented within the scope of the assurance is accurate. We recommend that JA Solar continue to improve the level of data governance (including internal data verification) at the group and operational levels.

A full management report was submitted to management of JA Solar for consideration, detailing the findings and recommendations for continuous improvement of the sustainability report.

Daniel Pan
Technical Manager of Corporate Sustainability Services
TÜV Rheinland (Shanghai) Co., Ltd
Shanghai, China, 22 April 2026



Appendix:

Selected specific performance indicators in the table as follows:

Indicator (s)	Unit
Environment	
Electricity Consumption	MWh
Natural Gas Consumption	10 ⁴ m ³
Coal Consumption	tonne
Diesel Consumption (burning of stationary source)	tonne
Diesel Consumption (burning of mobile source)	tonne
Gasoline Consumption	tonne
LPG Consumption	tonne
Heating Consumption	GJ
LNG Consumption	tonne
Scope 1: Direct GHG emissions	tCO ₂ e
Scope 2: Indirect GHG Emissions from imported energy	tCO ₂ e
Scope 3: Other Indirect GHG Emissions	tCO ₂ e
Total water withdrawal	m ³
Total wastewater discharge	m ³
Ultrapure Water Consumption	m ³
Social	
Number of Employees (By Gender, By Employment Type, By Age, By Location)	person
Employee Absenteeism Rate	%
Number of Fatalities due to Occupational Injuries (JA Solar and Contractors)	person
Lost-Time Injury Frequency Rate (LTIFR)	-
Governance	
Number of Suppliers	supplier
Number of First-level Suppliers	supplier
Percentage of First-level Suppliers in Total Procurement	%
Number of Suppliers that Have Undergone Social and Environmental Impact Assessment	supplier
Total number of suppliers in capacity building programs	supplier

ATTESTATION

ATTESTATION

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ATTESTATION



Organizational Greenhouse Gas Verification Statement

No. C2GHG 114228 0016 Rev. 00

GHG SSRs :	The SSRs of the responsible party contributing to GHG emissions and removals of facilities, physical infrastructure, activities, technologies and processes above
Types of GHGs :	CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs, SF ₆ , NF ₃
Time Boundary :	1 st Jan. 2025 to 31 st Dec. 2025

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TÜV SÜD Certification and Testing (China) Co., Ltd. Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and Technological Development Zone, Wuxi, Jiangsu, P.R. China



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ATTESTATION



Organizational Greenhouse Gas Verification Statement

No. C2GHG 114228 0016 Rev. 00

GHG Emissions :

Scope 1 : Direct GHG emissions	73864.07	tCO ₂ e
Scope 2 : Electricity indirect GHG emissions (market-based)	2322401.95	tCO ₂ e
Scope 2 : Electricity indirect GHG emissions (location-based)	2832779.25	tCO ₂ e
Scope 3 : Other indirect GHG emissions	19894355.25	tCO ₂ e
Category 1 : Purchased goods and services	17160714.49	tCO ₂ e
Category 2 : Capital goods	919205.37	tCO ₂ e
Category 3 : Fuel- and energy-related activities (not included in scope 1 or scope 2)	425486.54	tCO ₂ e
Category 4 : Upstream transportation and distribution	852888.11	tCO ₂ e
Category 5 : Waste generated in operations	8685.14	tCO ₂ e
Category 6 : Business travel	8268.34	tCO ₂ e
Category 7 : Employee commuting	6192.92	tCO ₂ e
Category 8 : Upstream leased assets	8363.86	tCO ₂ e
Category 9 : Downstream transportation and distribution	116741.67	tCO ₂ e
Category 10 : Processing of sold products	139713.40	tCO ₂ e
Category 11 : Use of sold products	4280.13	tCO ₂ e
Category 12 : End-of-life treatment of sold products	242533.15	tCO ₂ e
Category 13 : Downstream leased assets	234.64	tCO ₂ e
Category 14 : Franchises	0.00	tCO ₂ e
Category 15 : Investments	1047.49	tCO ₂ e
Biogenic direct CO ₂ emissions	0.00	tCO ₂ e
Biogenic electricity indirect CO ₂ emissions	0.00	tCO ₂ e
Biogenic indirect CO ₂ emissions other than from electricity	0.00	tCO ₂ e
GHG Total Emissions (market-based) :	22290621.27	tCO ₂ e
GHG Total Emissions (location-based) :	22800998.57	tCO ₂ e

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JA SUSTAINABILITY AND ESG REPORT 2025

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Environmental considerations for report publication
Paper: Printed on environmentally friendly paper
Ink: Using environmentally friendly ink to reduce air pollution

