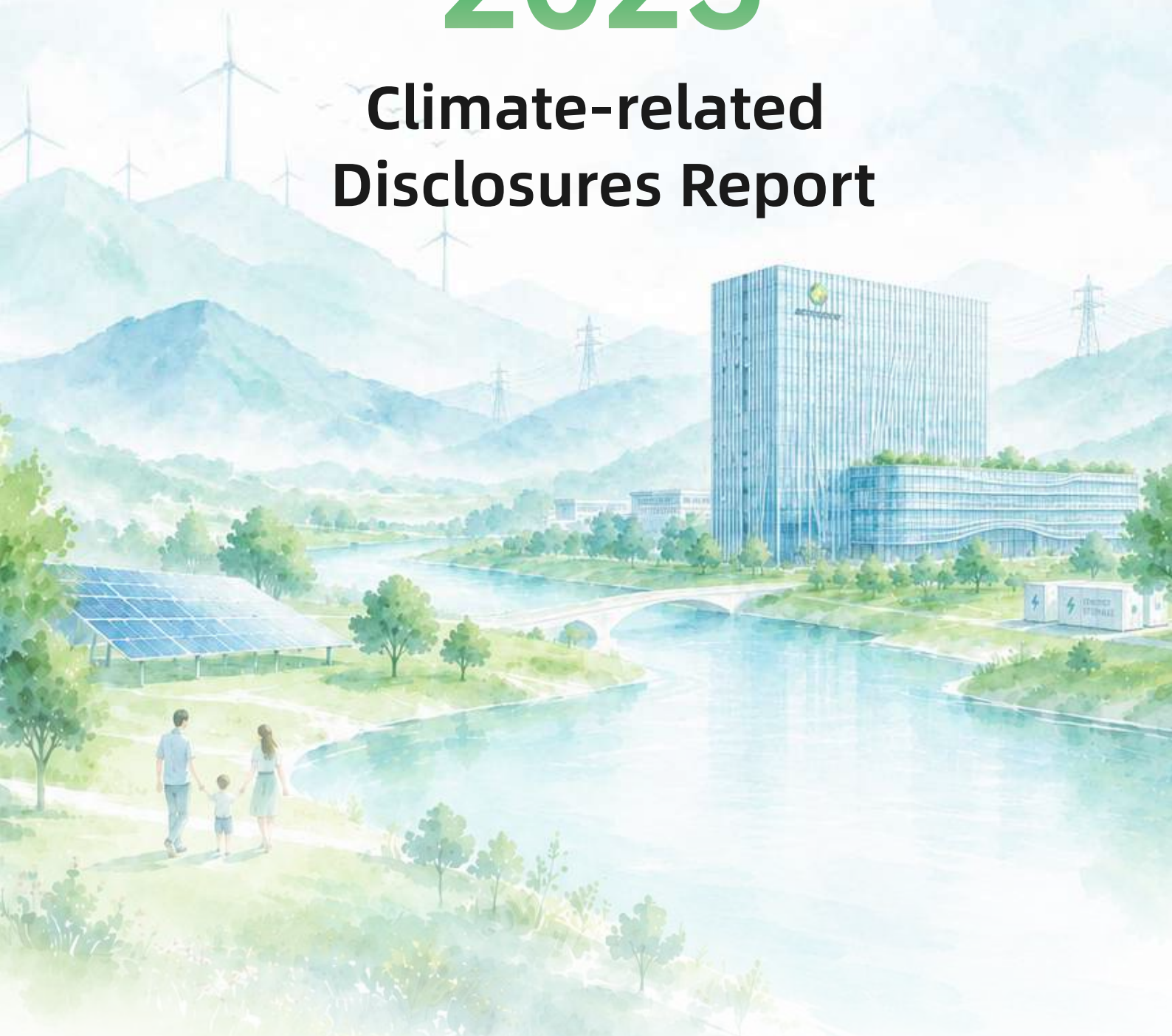




2025

Climate-related Disclosures Report



CHINT NEW ENERGY TECHNOLOGY CO., LTD.

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About this Report

The *Chint New Energy Technology Co., Ltd. 2025 Climate-related Disclosures Report* (hereinafter referred to as "this Report") is the first climate-related disclosures report issued by Chint New Energy Technology Co., Ltd. (hereinafter referred to as "Astronergy", "the Company", or "we"). This Report discloses the Company's practices in managing climate risks and opportunities, focusing on climate governance, strategy, risk management, and metrics and targets, thereby demonstrating our efforts and achievements in enhancing climate governance transparency, strengthening climate resilience, and advancing low-carbon transformation.

Organizational Scope

The information disclosed in this Report covers Astronergy and its affiliates¹.

Company Name	Abbreviation	Address
Chint New Energy Technology Co., Ltd.	Astronergy	No. 1 Jisheng Road, Jianshan New District, Haining City, Zhejiang Province
Chint Solar (Haining) Co., Ltd.	Haining Base	No. 2 Jisheng Road, Jianshan New District, Haining City, Zhejiang Province
Chint New Energy Technology (Yancheng) Co., Ltd.	Yancheng Base - Phase I	No. 1 Tonghui Road, Shanghai-Suzhou Industrial Linkage Agglomeration Area, Dafeng District, Yancheng City, Jiangsu Province
Chint New Energy Technology (Jiuquan) Co., Ltd.	Jiuquan Base	No. 15 Jingwu Road, Jiuquan Economic and Technological Development Zone, Suzhou District, Jiuquan City, Gansu Province
Songyuan New Energy Technology Co., Ltd.	Songyuan Base	YadaHong Industrial Zone, Ningjiang District, Songyuan City, Jilin Province
Hangzhou Zhengtai Import and Export Trading Co., Ltd.	/	Room 723, Building 2, No. 1335 Bin'an Road, Puyan Street, Binjiang District, Hangzhou City, Zhejiang Province
Hangzhou Branch of Chint New Energy Technology Co., Ltd.	/	Room 724, Building 2, No. 1335 Bin'an Road, Puyan Street, Binjiang District, Hangzhou City, Zhejiang Province
Chint Solar Technology (Yiwu) Co., Ltd.	Yiwu Base	No. 1 Qingcheng West Road, Fotang Town, Yiwu City, Jinhua City, Zhejiang Province
Chint Solar Technology (Yancheng) Co., Ltd.	Yancheng Base - Phase II	No. 8, Fengyang Road, HuSu Dafeng Industrial Linkage Cluster, Dafeng District, Yan cheng City, Jiangsu Province
Chint Solar Technology (Yueqing) Co., Ltd.	Yueqing Base	No.1 Xinneng Road, Yueqing Bay Harbor Economic Development Zone, Yueqing, Wenzhou City, Zhejiang Province
Chint Solar Technology (Fengyang) Co., Ltd.	Fengyang Base	No. 268 Fengxiang Avenue, Fengyang Economic Development Zone, Chuzhou City, Anhui Province
Chint New Energy Technology (Yanchi) Co., Ltd.	Yanchi Base	Block 2, Yanchi County Industrial Park, Wuzhong City, Ningxia Hui Autonomous Region (North of Gaoshawo)
Chint New Energy Technology (Fuyang) Co.,Ltd.	Fuyang Base	No. 177, Tongdeng Road, Lingqiao Town, Fuyang District, Hangzhou City, Zhejiang Province
Astronergy Solar Panel Üretim ve Ticaret Anonim Şirketi	Türkiye Base	F.SULTAN MEHMET MAH.POLİGON CAD.BUYAKA 2 SİT.1 B.N:8A/66 ÜMRANIYE

Reporting Period

This Report covers the period from January 1, 2025 to December 31, 2025 (hereinafter referred to as the "Reporting Period"). Considering the timeliness and continuity of information disclosure, certain information has been traced back to prior periods or appropriately extended to June 30, 2026.

Data Sources

All information and data cited in this Report are derived from internal documents, statistical reports, and financial statements of Astronergy, as well as other information compiled, summarized, and audited by the Company. Unless otherwise specified, all monetary amounts involved in this Report are denominated in Renminbi (RMB).

Basis of Preparation

- International Sustainability Standards Board (ISSB): *International Financial Reporting Sustainability Disclosure Standard 1 General Requirements for Disclosure of Sustainability-Related Financial Information* (IFRS S1) and *International Financial Reporting Sustainability Disclosure Standard 2 Climate-related Disclosures* (IFRS S2)
- Shanghai Stock Exchange Listed Company Self-Discipline Regulatory Guide No. 4 – Compilation of Sustainability Reports (Revised January 2026)*
- Shenzhen Stock Exchange Listed Company Self-Discipline Regulatory Guide No. 3 – Compilation of Sustainability Reports (Revised 2026)*
- Beijing Stock Exchange Listed Company Sustainability Report Compilation Guide*
- Enterprise Sustainability Disclosure Standard No. 1 – Climate (Trial Version)*

Availability

This Report is published in both Simplified Chinese and English versions. In case of any discrepancy, the Simplified Chinese version shall prevail. The electronic version of the Report can be accessed and downloaded from the Company’s website at www.astronergy.com.

Feedback

If you have any comments or suggestions on this report, you can contact our Sustainability Department through the following means:

Contact Address

No. 1 Jisheng Road, Jianshan New District, Haining City, Zhejiang Province

Contact Phone

0571-56031888

Contact Email

Sustainability@Astronergy.com

¹ M.L.T. SOLAR ENERGY PRODUCTS CO., Ltd. and other companies did not fully operate during the reporting period or were still under construction; therefore, they are excluded from the organizational boundary of this report. Hangzhou Zhengtai Import & Export Trade Co., Ltd. and the Hangzhou branch of Chint New Energy Technology Co., Ltd. do not have substantive business operations and are also excluded from the organizational boundary of this report.

| About Astronergy

Company Introduction

Under the CHINT Group, Astronergy is an intelligent manufacturing enterprise focusing on photovoltaic cells and modules. Founded in 2006, it is one of the earliest private enterprises in China to set foot in the photovoltaic field. It has the capacity to design and manufacture various cutting-edge technology solar products for the markets.

Committed to being the most competitive photovoltaic module supplier worldwide, Astronergy sets its mission to create a sustainable and net-zero carbon world with solar power. Committed to being the most competitive photovoltaic module supplier worldwide, Astronergy sets its mission to create a sustainable and net-zero carbon world with solar power. Astronergy sets its mission to create a sustainable and net-zero carbon world with solar power. Focusing on R&D, production and sales of high-efficiency crystalline silicon PV cells and PV modules, Astronergy has continuously launched the ASTRO series high-efficiency, high-quality, high-performance modules. Both its bifacial and monofacial ASTRO series modules using large-size wafers could be perfectly applied in various scenarios of utility-scale power stations, commercial & industrial (C&I) PV systems and residential PV systems.

Astronergy has been rated as a "Top Performer" by Kiwa PVEL, an authoritative PV module performance testing laboratory, for ten times. It has also been listed as a "Tier 1 PV Module Manufacturer" by Bloomberg New Energy Finance (BNEF)- an internationally renowned research institution-many times.



Mission

- To create a sustainable and net-zero carbon world with solar power



Values

- Customer focus
- Accountability
- Collaboration
- High efficiency
- Innovation



Product Value Proposition

- Create sustainable and efficient green energy



Business Layout

Adhering to the product value proposition of “create sustainable and efficient green energy”, Astronergy focuses on developing an intelligent system integrating production, supply and marketing from manufacturing,supply to sales; and provides professional and high-quality photovoltaic module products and services to customers around the world.

With business footprints in over 140 countries and regions, Astronergy has established intelligent manufacturing bases at Haining in Zhejiang, Yancheng in Jiangsu, Jiuquan in Gansu, Songyuan in Jilin,Fengyang in Anhui, Yiwu in Zhejiang, Yanchi in Ningxia, Yueqing in Zhejiang, Fuyang in Zhejiang, Yibin inSichuan, in Thailand and in Türkiye. It has also set up branch companies and sales centers in countries like Germany, Spain, the Netherlands, Poland, the United States, Canada, Brazil, Australia, Singapore, Japan, and Thailand, achieving great sales performance of Astronergy PV products in international mainstream markets of Europe, North America, Latin America, and Asia Pacific.

-  Manufacturing base
-  Sales center



Astronergy Global Business Layout

² Data as of December 31, 2025.

Business Coverage

140+

countries and regions

Cumulative Global Shipments²:

170+ GW

Global Smart Manufacturing Bases

12

InfoLink 2025 Module Shipment

Ranking: 6th Globally

TOPCon Global

Module Shipment Ranking: 4th

Honors and Awards

Tier 1 PV Module Supplier listed in S&P Global Commodity Insights



"Overall Highest Achiever" awarded by the Renewable Energy Test Center (RETC)



"Top Performer" honored by Kiwa PVEL for ten times



"VERY GOOD" rated by PV Magazine test for great module performance



"All Quality Matters Award" honored by TÜV Rheinland



BloombergNEF Tier 1 PV Module Manufacturer



2025 Zhejiang Unicorn Enterprise List



2026 ONE PLANET Foundation "One Earth" New Earth Partner



2025 Influential Photovoltaic Module Brand



2025 Influential Enterprise in Featured Application Project Cases



2025 Starlight Excellence Award for Outstanding Employer in Photovoltaic Intelligent Manufacturing



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



Astronergy High-Efficiency Solar Cell Module Future Factory by the Department of Economy and Information Technology of Zhejiang Province



2026 Top 10 Influential Module Brands in China's Distributed PV Market



Central-Africa Energy Innovation Cooperation Accelerator Project - Outstanding Case Award



CDP Supplier Collaboration Assessment (SEA) Overall Score: A-



Industry Engagement



United Nations Global Compact (UNGC)

Participants



China Photovoltaic Industry Association (CPIA)

Member Units



Japan Photovoltaic Energy Association (JPEA)

Member



Solar Stewardship Initiative

Manufacturer Member



Solar Power Europe (SPE)

Premium



SEMI SCC & ECOPV Cooperation Alliance

Core Members



German Solar Association (BSW)

Member



Solar Energy Industries Association (SEIA)

Kilowatt member



China ECOPV Alliance (ECOPV)

Vice-Chairman Units



China Resource Recycling Association

Council Units

01

Strengthening Climate Governance and Enhancing Resilience

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Against the backdrop of global energy transition and deepening climate governance, Astronergy coordinates climate action through a comprehensive governance architecture, deeply integrating climate change response into corporate strategy; takes Science-Based Targets (SBTs) as the guiding framework to systematically manage climate risks and opportunities; solidifies operational resilience through lifecycle decarbonization practices; and drives continuous improvement via quantifiable metrics and targets. As a new energy enterprise deeply rooted in the photovoltaic sector, we respond to global climate imperatives through full-chain green transformation, continuously advancing low-carbon development of our operations and value chain.

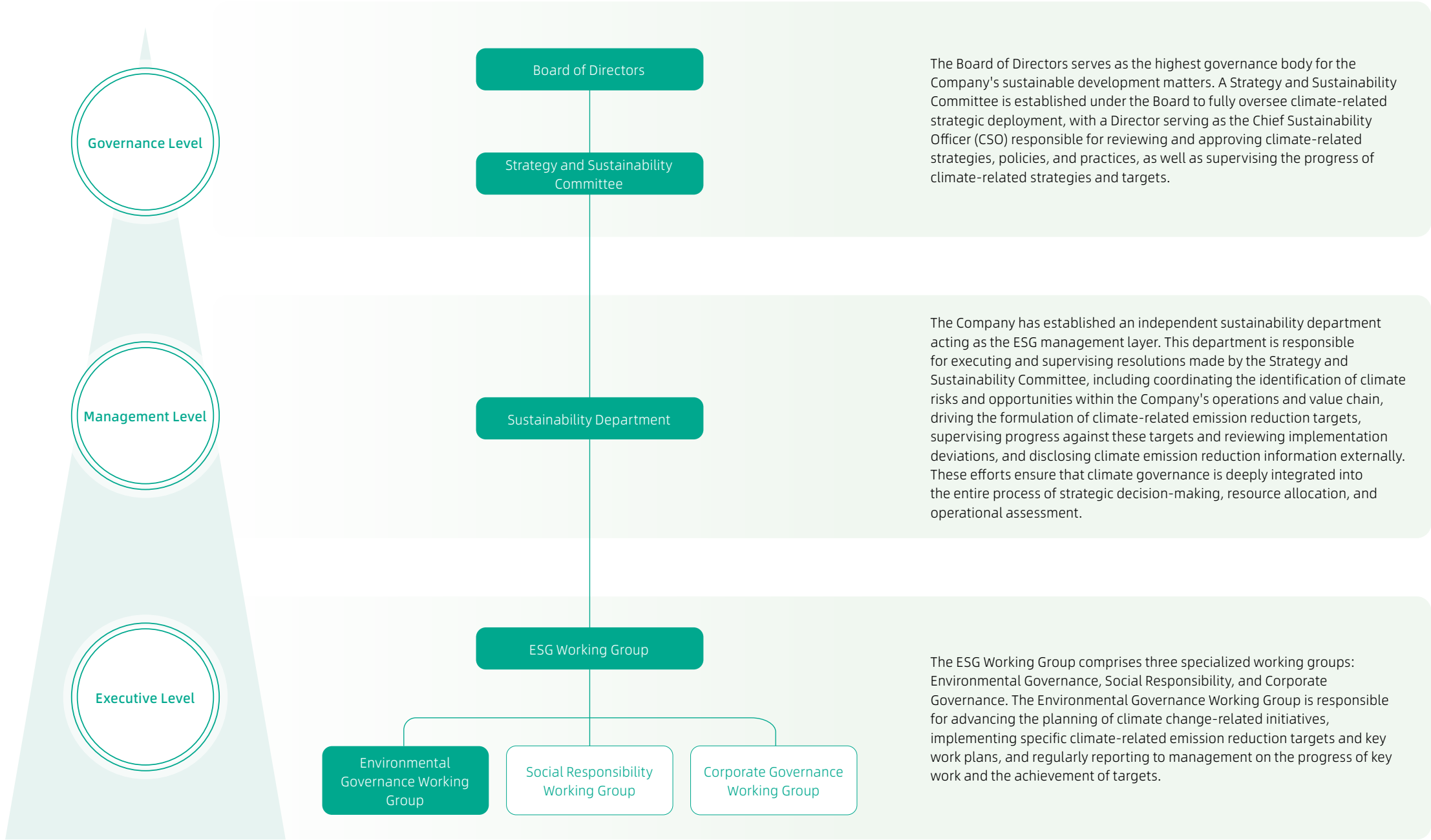


Governance

The Company continuously optimizes the top-level architecture designed and led by the Board of Directors, clearly defining the boundaries of authority and responsibility among the Board, management, and each business unit regarding climate issues. By establishing a regular mechanism for climate risk assessment, tracking of key objectives, and performance evaluation, the Company ensures the deep integration of its climate transition strategy with corporate operations, achieving effective implementation and closed-loop management of strategic intent, thereby providing a solid guarantee for the attainment of sustainable development goals.

Structure

Function



Astronergy's Governance Structure for Addressing Climate Change

The Company has established and continuously improved the climate risk and opportunity reporting mechanism. Based on domestic and international climate policies and industry standards, customers' low-carbon requirements, carbon compliance trends, and low-carbon project data across all internal production and operation stages, the Company regularly submits reports to the Board of Directors covering progress on short-, medium-, and long-term emission reduction targets, ISO 14064 greenhouse gas verification, ISO 14067 product carbon footprint assessments, Environmental Product Declarations (EPDs), zero-carbon factory construction, and procurement of green electricity and green energy certificates. These reports also incorporate analysis of climate risks and opportunities, budget execution status, and cross-departmental coordination matters, ensuring that the decision-making body maintains a comprehensive understanding of the Company's overall climate action progress.

To ensure information timeliness and the effectiveness of decision support, the Company implements a combined model of regular reporting and special reporting. The Board of Directors systematically tracks and reviews carbon emission reduction work through semi-annual meetings, annual work reports, and periodic face-to-face discussions. Based on these reviews, the Board assesses progress, allocates resources, and provides guidance for subsequent actions. Routine reporting is conducted on a semi-annual and annual basis. In the event of major project milestones, significant policy changes, or budget requests, ad hoc special reporting is initiated to ensure that climate governance decisions maintain both routine stability and responsiveness to key issues.

The Company routinely conducts climate-related capability enhancement programs through a combination of annual centralized training and specialized thematic training. Targeting the Board of Directors, specialized committees, and senior management, the Company regularly organizes specialized training sessions on low-carbon policies, carbon accounting methodologies, and the Science-Based Targets initiative (SBTi). External industry experts are invited to deliver lectures, interpreting the latest regulations and trend developments, thereby continuously strengthening the professional judgment and decision-making capabilities of management in the field of climate governance.

Strategy

In 2026, the Company conducted a comprehensive climate scenario analysis for the first time. In accordance with the TCFD framework and industry best practices, the Company systematically identified and assessed climate-related physical risks, transition risks, and potential opportunities, analyzed their potential short-, medium-, and long-term impacts on its operations and financial performance, and evaluated its adaptive capacity and business resilience under different climate scenarios.

Based on the assessment results, the Company has developed targeted climate response measures and integrated climate risk management into its long-term development strategy and operational management system. The Company continues to improve its climate risk governance mechanisms, strengthen climate resilience, proactively address the challenges posed by climate change, and capture development opportunities arising from the low-carbon transition and technological innovation, thereby promoting its long-term sustainable development.

Time Horizons and Scenario Selection

Based on the advancement of global climate governance, broader policy trends, industry transition pathways, and the Company’s business development plans, the Company established short-term (through 2028), medium-term (through 2035), and long-term (through 2050) time horizons to capture the evolving impacts of climate change on its key assets and business operations.

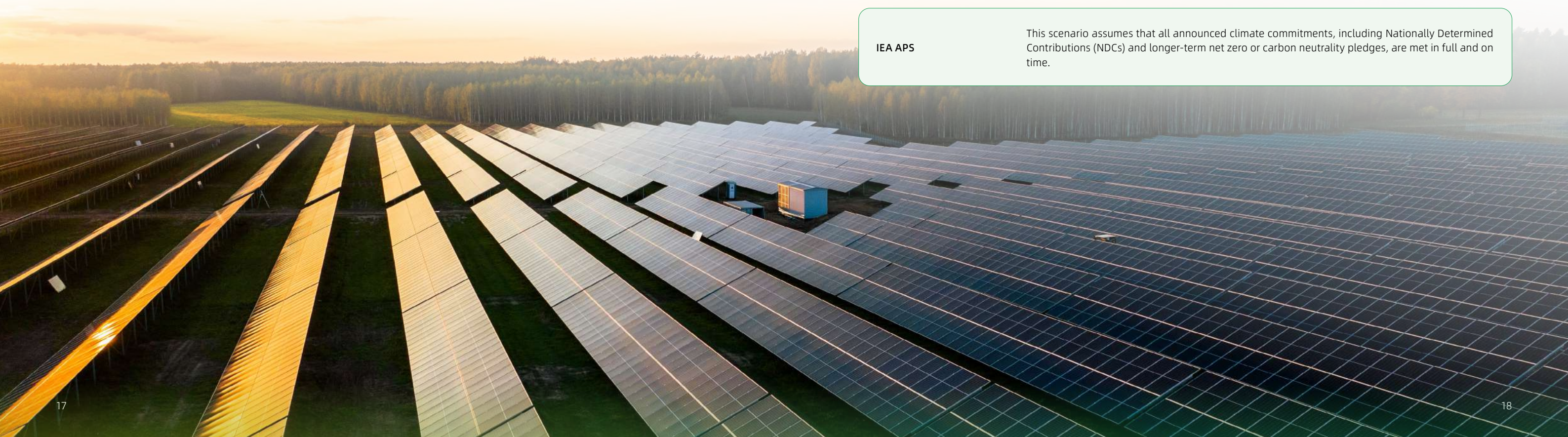
We used widely recognized international climate scenarios published by the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC) as the basis for our analysis. For physical risks, we selected the SSP1-RCP2.6 and SSP2-RCP4.5 scenarios. For transition risks, we selected the Net Zero Emissions by 2050 Scenario (NZE) and the Announced Pledges Scenario (APS). Based on key climate variables under different scenarios, including extreme weather events, temperature changes, and water stress, we systematically assessed the potential impacts of climate change on our key business operations and financial performance and identified strategic opportunities arising from the low-carbon transition. The analysis provides decision-making support for improving climate risk management and strengthening climate resilience.

Climate Scenarios for Physical Risk

Scenario Selection	Scenario Description
IPCC AR6 SSP1-RCP2.6	Global sustainable development advances at a relatively high level, with proactive emissions reduction efforts and continuously declining greenhouse gas emissions. The best estimate of global warming by the end of this century is approximately 1.8°C, and the impacts of climate change remain relatively manageable.
IPCC AR6 SSP2-RCP4.5	Global development follows an intermediate pathway. Emissions reduction efforts progress gradually but remain relatively limited, and greenhouse gas emissions stabilize while remaining at a certain level. The best estimate of global warming by the end of this century is approximately 2.7°C.

Climate Scenarios for Transition Risk and Opportunity

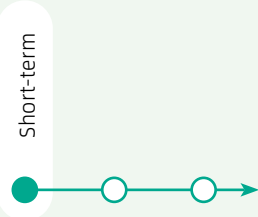
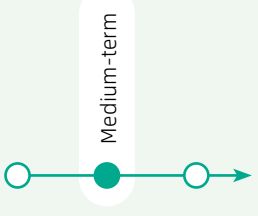
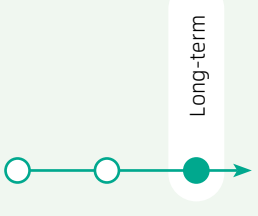
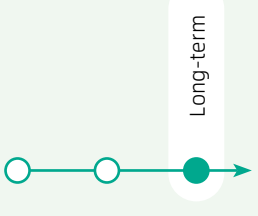
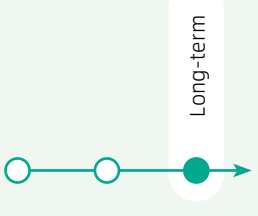
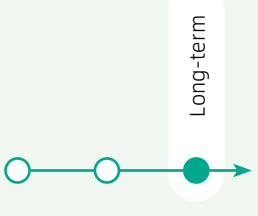
Scenario Selection	Scenario Description
IEA NZE	This scenario sets out a global pathway for the energy sector to achieve net zero emissions by 2050. Under this scenario, the global temperature rise is limited to below 1.5°C by 2100, .
IEA APS	This scenario assumes that all announced climate commitments, including Nationally Determined Contributions (NDCs) and longer-term net zero or carbon neutrality pledges, are met in full and on time.



Physical Risks

Drawing on factors including the policy and regulatory landscape, market conditions, the natural environment, and its own operations, the Company conducted an initial identification of climate-related risks and comprehensively analyzed the potential impacts of climate change on its business operations and value chain, laying the foundation for further climate scenario analysis and assessment.

➤ Upstream value chain ➤ Own operations ➤ Downstream value chain

Physical Risk		Potential Impact	Key Impact Time Horizon	Affected Value Chain Segment
Typhoon		Typhoons and strong winds may damage factory buildings, warehouse facilities, production equipment, and external utility facilities. They may also cause temporary suspension of operations and production, disrupt employee commuting, delay transportation, and postpone customer deliveries. When accompanied by heavy rainfall, typhoons may further increase the risks of waterlogging, inventory damage, and supply chain disruption.		
Flooding		Flooding, waterlogging, or inadequate drainage in surrounding areas may damage factory buildings, warehouses, raw materials, work-in-progress, finished goods, and production equipment. This may result in production interruptions, inventory losses, logistics disruptions, and delayed customer deliveries.		
Heavy rainfall		Short-duration intense rainfall or prolonged rainstorms may cause water accumulation within factory premises, dampness in storage areas, and damage to raw materials and packaging materials. They may also disrupt employee commuting, inbound supplier deliveries, finished product transportation, and project construction schedules, thereby affecting business continuity.		
Cold waves & frost damage		Extreme cold or cold waves may cause water supply pipes, fire protection piping, outdoor power facilities, and auxiliary systems to freeze and rupture or operate unstably. This may affect production water supply, equipment operation, and site safety and increase expenditure on insulation, freeze protection, maintenance, and emergency management.		
Heatwave		Prolonged heatwaves may increase the loads on workshop air-conditioning systems, cooling systems, and external power systems, raising electricity demand and operating pressure on equipment; They may also affect employees' outdoor work, commuting, and health, reducing production efficiency, and increase pressure related to heat stress prevention and safety management.		
Extreme heat		Extreme heat may reduce the heat dissipation efficiency of critical equipment, increase equipment failure rates, and add pressure to energy systems. During periods of tight regional power supply, they may also lead to power rationing or energy dispatch constraints, affecting production continuity, capacity utilization, and delivery reliability.		
Water scarcity		Regional water supply constraints, fluctuations in water quality, water withdrawal restrictions, or higher water prices may affect the stable operation of production water use, purified water preparation, cooling systems, wastewater treatment, and other key water-intensive processes, thereby affecting capacity stability, operational efficiency, and water costs per unit of product.		
Change in precipitation pattern		Long-term changes in the spatial and temporal distribution of precipitation may increase drought-flood variability. This may place greater pressure on drainage, flood control, and moisture protection for storage facilities, affect the stability of regional water supplies and upstream raw material supply, and complicate production planning, logistics arrangements, and emergency resource allocation.		
Sea-level rise		Long-term sea-level rise may increase the likelihood of coastal areas being affected by storm surges, tidal backwater effects, seawater backflow, and compound flooding. This may heighten the risk of damage to factory buildings, warehouses, equipment, roads, and port logistics facilities and place pressure on coastal asset security, logistics stability, and long-term operational resilience.		

Following the initial identification of climate-related risks, the Company further screened and prioritized each physical risk based on its likelihood of occurrence, magnitude of potential impact, impact time horizon, affected value chain segment, business relevance, and feasibility of quantitative analysis. The Company ultimately identified typhoon, extreme heat, flooding, and water scarcity as four material climate physical risks with significant potential impacts on production and operations, supply chain stability, and resource security, and included them in the subsequent climate scenario analysis.

The scenario analysis results indicate that the physical risks associated with typhoon, extreme heat, flooding, and water scarcity generally increase over time. Based on the analysis results, we continue to improve our risk response measures, strengthen our climate risk management capabilities, and enhance business resilience.



Upstream value chain Own operations Downstream value chain Low Medium High

Risk	Potential Impact	Affected Value Chain Segment	Time Horizon	Impact Level under RCP 2.6	Impact Level under RCP 4.5	Financial Impact Mechanism	Financial Impact Level	Response Measures
Typhoon 	Coastal manufacturing bases in Zhejiang, Jiangsu, and other regions may be affected by typhoons and strong winds, which could damage factory roofs, external facilities, storage areas, and critical equipment. Such events may also cause temporary production and operational suspensions, disrupt employee commuting, and delay logistics and deliveries. When accompanied by heavy rainfall, typhoons may further increase the risks of waterlogging within factory premises and inventory damage.		Short-term			Damage to factory buildings, equipment, and inventories caused by typhoons may result in repair expenses, asset impairment losses, and inventory write-downs or scrapping losses. Production disruptions and logistics delays may affect order fulfillment and revenue recognition, thereby impacting operating revenue, operating costs, the carrying amounts of assets, and operating cash flows.		- Conduct wind-resistance reinforcement and typhoon preparedness inspections for buildings at coastal bases; - Establish emergency response plans for typhoon and flood control and maintain adequate emergency supplies; - Strengthen meteorological early warning, emergency duty arrangements, and post-event reviews and improvement; - Purchase property insurance and business interruption insurance for key bases; - Incorporate climate factors such as typhoons, strong winds, and heavy rainfall into assessments for new, expanded, and renovated bases.
			Medium-term					
			Long-term					
Extreme heat 	Prolonged high temperatures may increase the load on workshop air-conditioning systems, cooling systems, and external utility systems, raising electricity demand and the risk of equipment failure. They may also affect employees' outdoor work, commuting, health, and safety, reducing production efficiency. Tight regional power supply may result in power rationing or energy dispatch constraints. In addition, extreme heat and drought may cause landscaping plants within factory premises to wither from water shortages, increasing tap water consumption and landscaping maintenance pressure.		Short-term			Higher temperatures may increase electricity consumption by cooling and utility systems, raising energy costs and equipment maintenance expenses. Equipment failures, shutdowns for maintenance, or employee health incidents may reduce production efficiency and affect unit manufacturing costs, operating costs, administrative expenses, and capacity utilization. Hot weather may also increase the frequency of landscaping maintenance and related operating costs.		- Strengthen extreme heat alerts and temperature and humidity monitoring in workshops; - Optimize the operation of air-conditioning, cooling, compressed air, and other systems; - Conduct equipment inspections and preventive maintenance, and improve heat stress prevention, staggered work arrangements, and employee health protection measures; - Use the Energy Management System to identify abnormal energy consumption and advance energy-saving technical upgrades; - Implement zoned landscaping maintenance based on soil moisture conditions and improve maintenance efficiency through small-volume, frequent watering and slow irrigation.
			Medium-term					
			Long-term					
Flooding 	Bases in coastal and low-lying areas may be affected by the combined impacts of flooding, waterlogging, and heavy rainfall, which could damage factory buildings, warehouses, raw materials, work-in-progress, and equipment, and may lead to production interruptions, logistics disruptions, and delayed supply chain deliveries.		Short-term			Flooding or waterlogging may cause moisture damage to inventories, resulting in inventory write-offs, equipment repair expenses, and impairment losses on fixed assets. Transport disruptions may increase the costs of alternative transportation, warehousing, and delivery coordination. Production interruptions or delayed customer deliveries may in turn affect operating revenue, provisions for inventory write-downs, operating costs, capital expenditures, and operating cash flows.		- Establish emergency response plans for flooding and waterlogging; - Upgrade flood-control facilities, inspect drainage systems, and optimize site elevations at bases in the Yangtze River Delta and coastal areas; - Strengthen moisture-proofing, waterproofing, and inventory protection in warehouses; - Improve supply chain emergency dispatch arrangements and alternative transportation plans; - Purchase property insurance and business interruption insurance.
			Medium-term					
			Long-term					
Water scarcity 	Production water supply at certain bases in Gansu, Zhejiang, and other regions may be affected by regional water availability, changes in water quality, water withdrawal restrictions, or rising water prices, potentially affecting production continuity, pure water preparation, wastewater treatment, and capacity utilization.		Short-term			Water scarcity or fluctuations in water quality may increase the costs of water withdrawal, pretreatment, softening, recycling, and wastewater treatment. Reduced water supply stability may lower production efficiency or cause temporary production suspensions, thereby affecting operating costs, capacity utilization, capital expenditures, unit product costs, and operating cash flows.		- Conduct water resource risk identification and water use monitoring; - Advance water-saving technical upgrades, circulating water system retrofits, reclaimed water use, and rainwater collection; - Incorporate water-saving design into new construction, expansion, and renovation projects; - Optimize production processes and water treatment systems; - Incorporate water availability into decisions on base locations, capacity planning, and long-term capital investment.
			Medium-term					
			Long-term					

Astronergy’s Assessment Results of Physical Risks and Response Measures

The Company actively responds to global climate governance trends and continues to integrate climate action throughout its production and operations, warehousing and logistics, resource management, and emergency management processes. Focusing on the key physical risks identified through climate scenario analysis, including typhoon, flooding, extreme heat, and water scarcity, the Company continues to improve its climate risk response mechanisms and strengthen its operational resilience and business continuity under complex climate scenarios.

Extreme Weather Management

The Company continues to improve its emergency management system for extreme weather and related emergencies, enhancing its ability to identify, respond to, and manage climate-related emergency risks. In 2025, the Company formulated and implemented the *Extreme Weather Control Procedure*, bringing typhoon, flooding, extreme heat, and other risks under dedicated management and further clarifying requirements for warning identification, information dissemination, on-site inspections, emergency response, and closed-loop rectification. The Company also revised the *Emergency Response Management Procedure* to specify EHS-related responsibilities and improve requirements for emergency training, drills, post-incident reviews, and continuous improvement, providing institutional safeguards for responding to extreme weather and other emergencies.

The Company has established a unified extreme weather warning and response mechanism. It continuously monitors local meteorological warnings, government notices on flood control and disaster prevention, and weather trends, and conducts risk assessments and tiered responses based on warning levels. When an extreme weather warning is issued, the Company promptly communicates the warning through its internal information platform, specifying the risk type, potential scope of impact, and preventive requirements. Based on conditions at key locations, including production workshops, warehousing and logistics facilities, office areas, and employee dormitories, the Company organizes targeted inspections, hazard identification, and emergency response, establishing closed-loop management from warning issuance to on-site rectification.

For frequently occurring extreme weather events such as typhoon and flooding, the Company prepares flood-control sandbags, drainage pumps, rain gear, first-aid kits, and other emergency supplies in advance. In accordance with the *Emergency Supplies Management Work Instruction*, the Company standardizes their allocation, maintenance, inventory checks, and replacement to ensure readiness. Before extreme weather events, the Company inspects key areas and refines natural disaster response arrangements based on each base’s climate exposure, production characteristics, and utility facility requirements, while strengthening risk controls for utility systems, warehousing and logistics, and critical equipment and facilities. During such events, designated personnel conduct on-duty inspections and promptly address abnormalities, reducing the risks of equipment failure, cargo damage, and operational disruption while safeguarding employees, production and operations, and customer deliveries.

To address extreme heat risk, the Company implements risk prevention and control measures across four areas, namely safety training, heat stress prevention, emergency response, and health monitoring, based on summer production arrangements and the characteristics of different job positions. These measures reduce the impacts of extreme heat on employee health, equipment operation, and energy use in office and production areas, while strengthening work safety and operational support during periods of high temperatures.



Summer Heat Safety Training

The Company provides summer heat safety training to strengthen employees’ understanding of heat-related occupational risks, heatstroke prevention, personal protection, and emergency response requirements, thereby enhancing their safety awareness and self-protection capabilities when working in high-temperature conditions.



Summer Heat Safety Training

Emergency Drills for Extreme Heat

The Company conducts emergency drills for extreme heat, focusing on response procedures for heat-related emergencies such as heatstroke and associated production safety risks, thereby strengthening employees’ on-site response and coordinated emergency handling capabilities.



Extreme Heat Emergency Drill

Heat Stress Prevention Supplies

The Company provides heat stress prevention supplies based on the needs of on-site work and daily office activities during hot weather, reducing the impact of high temperatures on employee health and work performance.

Specialized Occupational Health Examinations for Heat Exposure

The Company conducts specialized occupational health examinations for employees exposed to high temperatures and other occupational hazards at work, further strengthening occupational health risk identification, monitoring, and management.

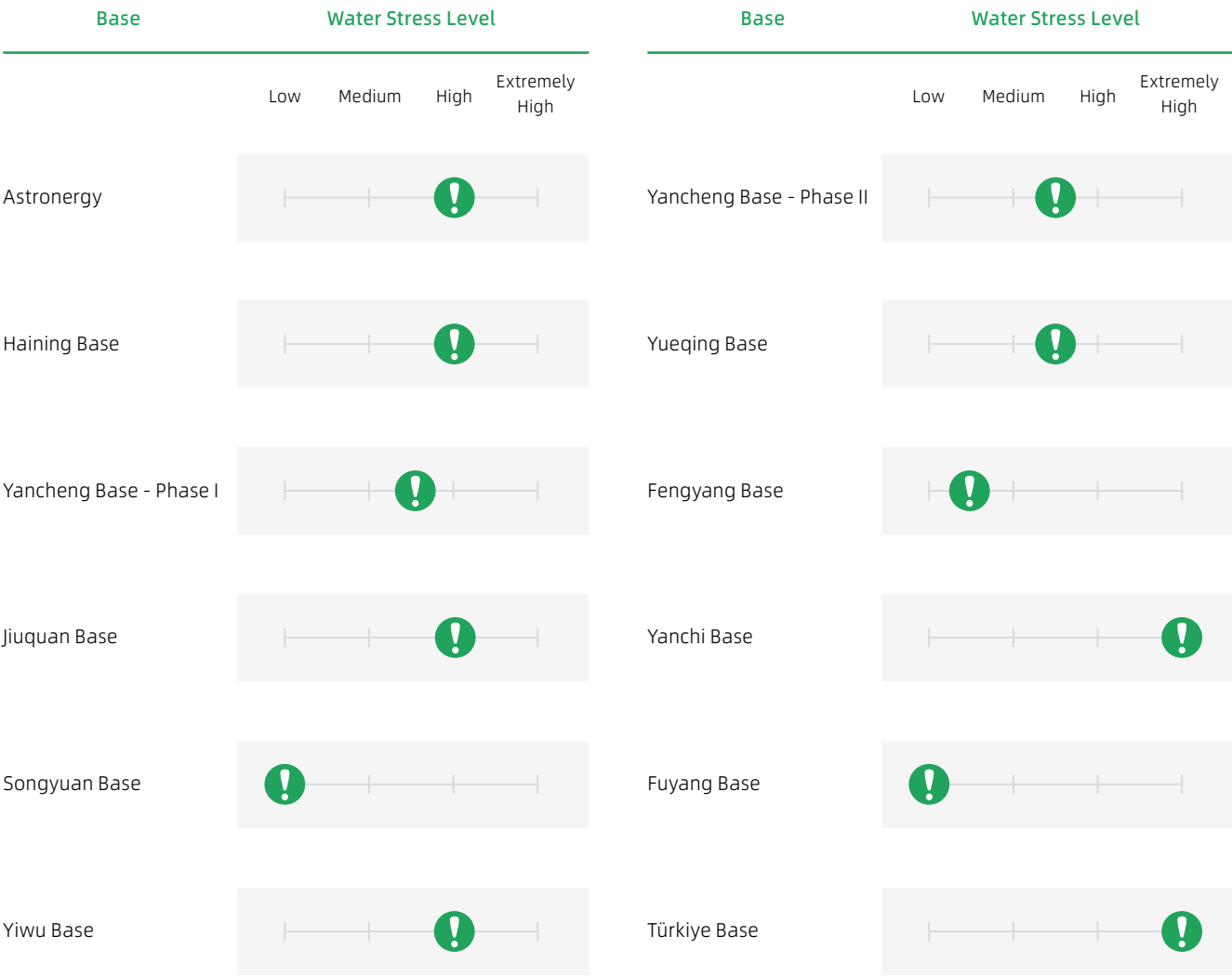
Astronergy’s Extreme Heat Response Measures

In addition, further details on the Company’s efforts to strengthen climate risk management capabilities, raise employees’ low-carbon awareness, and advance digital compliance management are provided in Section Strengthening the Cultural Foundation.

Regional Water Resource Risk Management

A stable water supply is essential to addressing chronic physical risks and maintaining continuous production. In response to potential impacts from water scarcity, changes in precipitation patterns, and regional water supply constraints, the Company incorporates water stress assessment results into base operations and resource efficiency management. It adopts differentiated response measures based on each manufacturing base’s water intake sources, water usage processes, and basin characteristics.

With reference to the World Resources Institute (WRI) Aqueduct Water Risk Assessment Framework and CDP Water Security Questionnaire requirements, the Company assessed water stress levels at 12 manufacturing bases. It evaluated the water stress faced by each base based on its water intake sources, key water-consuming processes, regional water supply stability, and water quality. Based on the identification results, the Company prioritizes bases with higher water resource risks and key water-consuming processes, including pure water preparation, waste gas treatment, and cooling systems. The results provide an important basis for setting water-saving targets, monitoring water use, and planning technical retrofit projects.



Astronergy’s Water Resource Risk Assessment Results for Key Assets

Focusing on the identified priority bases and key water-consuming processes, the Company continues to advance water-saving technical upgrades and operational optimization. At bases vulnerable to water supply instability, it strengthens reclaimed water reuse, rainwater collection, water recycling, and builds emergency water supply capacity. At bases facing water quality fluctuations or high treatment costs, it enhances water pretreatment, water softening, and wastewater reuse management. For processes with high pure and ultra-pure water consumption, it promotes air-conditioning reverse osmosis (RO) water recycling, the recovery and reuse of hydrofluoric acid and sodium hydroxide from wastewater, and ultra-pure water recovery, thereby reducing the potential impacts of water stress on production continuity, operating costs, and resource security.

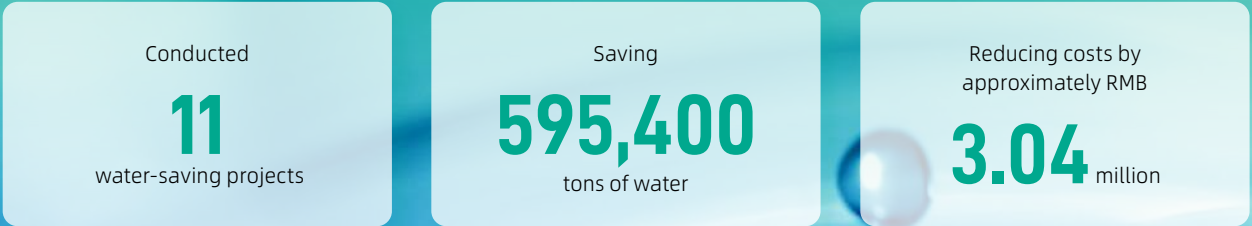
CASE | Reclaimed Water and Rainwater Reuse at Astronergy’s Yiwu Base

Based on regional water resource conditions and production water demand, the Yiwu Base continues to advance reclaimed water reuse and rainwater collection. During the Reporting Period, reclaimed water was used throughout the entire production process, with a utilization rate of 97%, effectively reducing reliance on municipal tap water. It also operates a rainwater storage tank and a rainwater reuse tank, using collected rainwater for landscaping and road cleaning. These measures enhance water recycling and reduce the potential impact of regional water stress on operations.



Performance Highlights

In 2025



Transition Risk and Opportunity

With the steady implementation of China's Dual-Carbon goals and related policy frameworks, the green and low-carbon transition across the economy and society continues to progress, further reinforcing the long-term foundation for the development of clean energy industries, including the PV industry. Against the backdrop of deepening global energy transition, the PV industry faces transition pressures arising from policies and regulations, market demand, technological iteration, and reputation management, while also embracing development opportunities including growing demand for clean energy, enhanced competitiveness of low-carbon products, and the upgrading of green manufacturing. As a manufacturer of photovoltaic cells and modules, Astronergy has conducted a preliminary assessment of the transition risks and opportunities relevant to its business operations, taking into account both its own operations and the upstream and downstream segments of its value chain.

➡ Upstream value chain ➡ Own operations ➡ Downstream value chain

Risk	Type		Risk Factor		Potential Impacts		Key Impact Time Horizon		Affected Value Chain Segment	
Transition Risk	Policy and Legal		Enhanced climate-related disclosure requirements	Stricter requirements for climate information disclosure, greenhouse gas inventories, product carbon footprint, life cycle assessment, and supply chain carbon data may increase costs related to data management, third-party assurance, and disclosure compliance.			Short-term Medium-term Long-term	Upstream Own Downstream		
			Carbon emission policies and changes	Continuous changes in domestic and international carbon pricing, carbon trading, and emission reduction policies may increase energy costs, emission reduction investments, and carbon management costs, thereby affecting operating cost.						
			Tightening of climate policies and regulatory requirements	More stringent requirements in operating regions regarding energy consumption, water consumption, carbon emission intensity, green manufacturing, and clean energy usage may increase costs related to energy conservation and carbon reduction, water-saving upgrades, energy structure adjustments, and low-carbon compliance.						
	Technology		Cost of transition to low-emission technologies	Low-carbon transition may require equipment upgrades, process transformation, and increased adoption of clean energy, which may increase capital expenditure and technology investment and result in the premature retirement of certain assets.						
			Technology iteration competition	Accelerated technological advancement in the PV industry may weaken product competitiveness if the Company fails to maintain technological leadership or control energy consumption costs.						
			Insufficient low-carbon design capabilities	As low-carbon design increasingly influences photovoltaic (PV) products competitiveness, failure to optimize material selection, clean energy utilization, and low-carbon technology pathways may affect product certification, customer recognition, and market competitiveness.						
	Market		Changes in consumer behavior	Growing attention among downstream customers to low-carbon modules, environmental certifications, and green supply chains may cause relevant certifications and carbon footprint performance to shift from additional advantages to market entry requirements, potentially affecting the Company's ability to secure orders and its market share.						
			Increasing product access requirements	Rising requirements in overseas markets for product carbon footprints, carbon emission data, low-carbon certifications, and supply chain carbon management may increase export compliance costs and affect overseas market access and export revenue.						
			Industry development trends	Intensifying competition, price fluctuations, and changes in application scenarios in the PV industry may compress profit margins and result in inventory impairment, market share decline, and revenue fluctuations.						
			Increasing raw material costs	Climate change and energy price fluctuations may affect the stability of upstream raw material supply and increase procurement costs and inventory management pressure.						
			Sustainable supply chain	Increasing requirements for suppliers' carbon emissions, energy efficiency, environmental data traceability, and compliant materials may increase the costs of supplier audits, alternative sourcing, and supply chain management.						
	Reputation		Stakeholder expectations	Investors, customers and the public are raising their expectations for ESG management and transparency. Failure to effectively respond to these expectations may impact brand value, customer cooperation, and financing capabilities.						
Opportunity	Resource Efficiency		Enhancing resource recycling and utilization	Enhancing the recycling and utilization of water resources, waste, and materials can help reduce resource consumption, operating costs, and product life-cycle carbon emissions.						
	Energy Source		Low-carbon manufacturing	Reducing production carbon emissions through renewable electricity substitution, clean energy utilization, and process optimization can enhance low-carbon manufacturing capabilities and product competitiveness.						
	Market		Expansion in emerging markets	Growing demand for clean energy in emerging markets such as the Middle East and Africa, combined with support from low-carbon energy transition policies and resource advantages, may increase business scale and market opportunities.						
			Accelerating energy transition	The global transition toward clean energy and growing demand for renewable electricity may drive increased demand for PV products, creating opportunities for revenue growth and market expansion.						
	Products and Services		Increasing demand for green and low-carbon products	Growing attention from customers and the market to product carbon footprints, low-carbon certifications, and environmental performance, together with procurement preferences for low-carbon products in certain market tenders, is expected to further strengthen the competitiveness of companies with low-carbon advantages.						
			Coordinated development of solar energy and energy storage	Growing demand for new power systems and renewable electricity integration promotes the development of integrated solar and energy storage projects and increases demand for efficient and reliable PV modules.						
			Innovation and iteration of PV products	Increasing demand for high-efficiency, low-carbon, and scenario-based PV products can enhance product competitiveness and expand application scenarios.						
			Smart energy operation business	Growing demand for distributed photovoltaics, energy storage, and smart energy management creates business opportunities for green and intelligent energy solutions.						
Resilience		Low-carbon value chain	Growing demand for carbon footprint management across the entire value chain is expected to promote collaborative emissions reduction and create opportunities for low-carbon cooperation across the upstream and downstream value chain.							

Based on the preliminary identification of transition risks and opportunities, the Company further conducted a comprehensive assessment and prioritization of various transition risks and opportunities by considering factors including photovoltaic industry development trends, changes in global climate policies and trade regulations, customer demand for low-carbon products, technological development directions, fluctuations in energy and raw material costs, low-carbon supply chain management requirements, as well as the Company’s business strategy, product portfolio, and low-carbon manufacturing capabilities. Through this process, the Company ultimately identified key transition risks and opportunities with significant impacts on its business development and formulated corresponding management measures. Detailed management measures for key transition risks and opportunities are provided in subsequent sections.

Upstream value chain
 Own operations
 Downstream value chain
 Low
 Medium
 High

Transition Risk	Type	Risk Factor	Potential Impacts of Risks	Value Chain Segment	Time Horizon	Impact Level under NZE	Impact Level under APS	Financial Impact Mechanism	Financial Impact Level	Response Measures
Transition Risk	Policy and Legal	Enhanced climate-related disclosure requirements	Stricter requirements for climate information disclosure, greenhouse gas inventories, product carbon footprint, life cycle assessment, and supply chain carbon data may increase costs related to data management, third-party assurance, and disclosure compliance.		Short-term			Increasing requirements for climate-related disclosures may result in declining customer and investor confidence and higher financing costs if the Company fails to provide sufficient disclosures or maintain high-quality data.		Improve the climate information disclosure and carbon data management systems; advance greenhouse gas verification, product carbon footprint certification, and supply chain carbon data tracking to enhance disclosure quality and data traceability.
					Medium-term					
					Long-term					
		Tightening of climate policies and regulatory requirements	More stringent requirements in operating regions regarding energy consumption, water consumption, carbon emission intensity, green manufacturing, and clean energy usage may increase costs related to energy conservation and carbon reduction, water-saving upgrades, energy structure adjustments, and low-carbon compliance.		Short-term			Stricter climate regulations in the Company's operating locations may require increased investment in energy efficiency, carbon reduction, and water conservation initiatives, resulting in higher capital expenditures.		- Continuously track domestic and international climate regulations and green standards, establish cross-functional coordination mechanisms, and implement regulatory requirements in a timely manner; - Advance energy conservation, carbon reduction, water-saving design, and process optimization, and incorporate low-carbon and water-saving requirements into new construction, expansion, and renovation projects; - Actively obtain product carbon footprint certifications and green certifications.
					Medium-term					
					Long-term					
	Technology	Technology iteration competition	Accelerated technological advancement in the PV industry may weaken product competitiveness if the Company fails to maintain technological leadership or control energy consumption costs.		Short-term			Accelerated photovoltaic technology iteration may weaken the market competitiveness of existing products, resulting in declining product sales and adversely affecting sales revenue.		- Maintain leadership in n-type TOPCon technology, while reserving and developing leading technologies; - Deepen industry-academia-research cooperation, and continuously launching products with higher efficiency and diverse application scenarios; - Optimize processes to reduce costs and energy consumption; - Establish a technology roadmap to assess the market potential, maturity, and returns of different pathways, diversify investment, and accelerate the transition to mass production; - Strengthen intellectual property deployment and protection to reduce technology-related risks.
					Medium-term					
					Long-term					
		Increasing product access requirements	Rising requirements in overseas markets for product carbon footprints, carbon emission data, low-carbon certifications, and supply chain carbon management may increase export compliance costs and affect overseas market access and export revenue.		Short-term			Rising low-carbon access standards and climate-related trade requirements in major markets may increase investments in export compliance, product carbon footprint accounting, and low-carbon certifications, resulting in higher product costs.		- Track low-carbon access, carbon footprint, and green certification requirements in major overseas markets; - Improve product carbon footprint accounting and certification management, - Conduct carbon emission assessments during product development; - Strengthen communication with overseas customers and supply chain carbon data management; - Optimize overseas sales, production capacity layout, supply chain, and localization cooperation arrangements based on market policy changes.
					Medium-term					
					Long-term					
	Market	Increasing raw material costs	Climate change and energy price fluctuations may affect the stability of upstream raw material supply and increase procurement costs and inventory management pressure.		Short-term			Intensifying global climate change and increasingly stringent carbon-related regulations may increase suppliers' costs related to energy transition, compliance management, and carbon reduction, which may be transmitted downstream through rising raw material prices and increase the Company's product costs.		- Incorporate environmental and climate factors into supplier qualification and ongoing management, and improve supplier evaluation of carbon emissions, energy efficiency, and environmental compliance; - Continuously identify, assess, and manage risks related to raw material supply and prices arising from climate change; - Reduce supply chain volatility through diversified procurement.
					Medium-term					
					Long-term					
		Stakeholder expectations	Investors, customers and the public are raising their expectations for ESG management and transparency. Failure to effectively respond to these expectations may impact brand value, customer cooperation, and financing capabilities.		Short-term			Increasing ESG performance expectations from investors, customers, and the public may weaken stakeholder trust, reduce customer cooperation and order opportunities, and affect sales revenue if the Company's ESG performance falls short of expectations.		- Conduct stakeholder surveys, expand communication channels, and continuously optimize ESG management; - Establish standardized ESG data collection and disclosure mechanisms, publish annual sustainability reports, and advance third-party assurance; - Actively participate in and join initiatives such as SBTi, the <i>United Nations Global Compact Forward Faster</i>, SSI, and CCCA to align carbon reduction actions with higher standards.
					Medium-term					
					Long-term					

Astronergy's Assessment Results of Transition Risks and Response Measures

➡ Upstream value chain ➡ Own operations ➡ Downstream value chain 📊💰📊📊 Low 📊💰📊📊📊 Medium 📊💰📊📊📊📊 High

Opportunity	Type	Opportunity Factor	Potential Impacts of Opportunities	Value Chain Segment	Time Horizon	Impact Level under NZE	Impact Level under APS	Financial Impact Mechanism	Financial Impact Level	Response Measures
Opportunity		Accelerating energy transition	The global transition toward clean energy and growing demand for renewable electricity may drive increased demand for PV products, creating opportunities for revenue growth and market expansion.		Short-term			Accelerating the global energy transition may drive increased demand and sales volumes for PV products, thereby supporting sales revenue growth.		• Establish local offices in key markets including Germany, Spain, the United States, and Japan to enhance customer response, local services, and market development capabilities.
		Medium-term								
		Long-term								
		Expansion in emerging markets	Growing demand for clean energy in emerging markets such as the Middle East and Africa, combined with support from low-carbon energy transition policies and resource advantages, may increase business scale and market opportunities.		Short-term			Growing clean energy demand in emerging markets may increase the Company's overseas orders and expand its business scale, supporting sales revenue growth.		
		Medium-term								
		Long-term								
		Increasing demand for green and low-carbon products	Growing attention from customers and the market to product carbon footprints, low-carbon certifications, and environmental performance, together with procurement preferences for low-carbon products in certain market tenders, are expected to further strengthen the competitiveness of companies with low-carbon advantages.		Short-term			The Company's expansion in the low-carbon product market may create additional market opportunities and increase product sales, thereby driving sales revenue growth.		• Integrate compliance and low-carbon requirements into the product design stage, continuously conduct product carbon footprint accounting, certification preparation, and low-carbon material R&D to reduce product life-cycle carbon emissions.
		Medium-term								
		Long-term								
		Coordinated development of solar energy and energy storage	Growing demand for new power systems and renewable electricity integration promotes the development of integrated solar and energy storage projects and increases demand for high-efficiency and high-reliability PV modules.		Short-term			Increasing demand for solar and energy storage projects may drive growth in orders for high-efficiency and low-carbon modules and expand business scale, thereby increasing sales revenue.		• Optimize module efficiency, reliability, and adaptability for solar and energy storage application scenarios, and strengthen cooperation with power station owners, EPC companies, and energy solution customers.
					Medium-term					
					Long-term					
		Innovation and iteration of PV products	Increasing demand for high-efficiency, low-carbon, and scenario-based PV products can enhance product competitiveness and expand application scenarios.		Short-term			Continuous innovation and iteration of PV products may improve power generation efficiency and scenario adaptability, enhance market competitiveness, increase orders, and drive sales revenue growth.		• Continue advancing R&D of high-efficiency module technologies such as TOPCon, low-temperature processes, low-carbon frames, and scenario-based products to improve product efficiency, reliability, and low-carbon competitiveness.
					Medium-term					
					Long-term					

Astronergy's Assessment Results of Opportunities and Response Measures

Risk Management

The Company treats climate change as a critical issue within its sustainable development strategy and integrates it into long-term strategic planning and risk management.

We have established and continuously improved our risk management mechanism to monitor the Company's operational status, risks, and the execution of response measures. This forms a closed-loop mechanism covering risk identification, assessment and analysis, prioritization, approval and reporting, specific implementation, and optimization review. Furthermore, we deeply integrate the outcomes of climate scenario analysis into strategic decisions such as capacity planning, process upgrades, and international market layout. Currently, the Company adheres to ISO 37001 and ISO 37301 standards and has formulated the *Compliance Risk and Opportunity Management Policy* to ensure dynamic alignment between risk prevention and control and the Company's long-term value creation objectives, thereby continuously enhancing the Company's climate resilience.

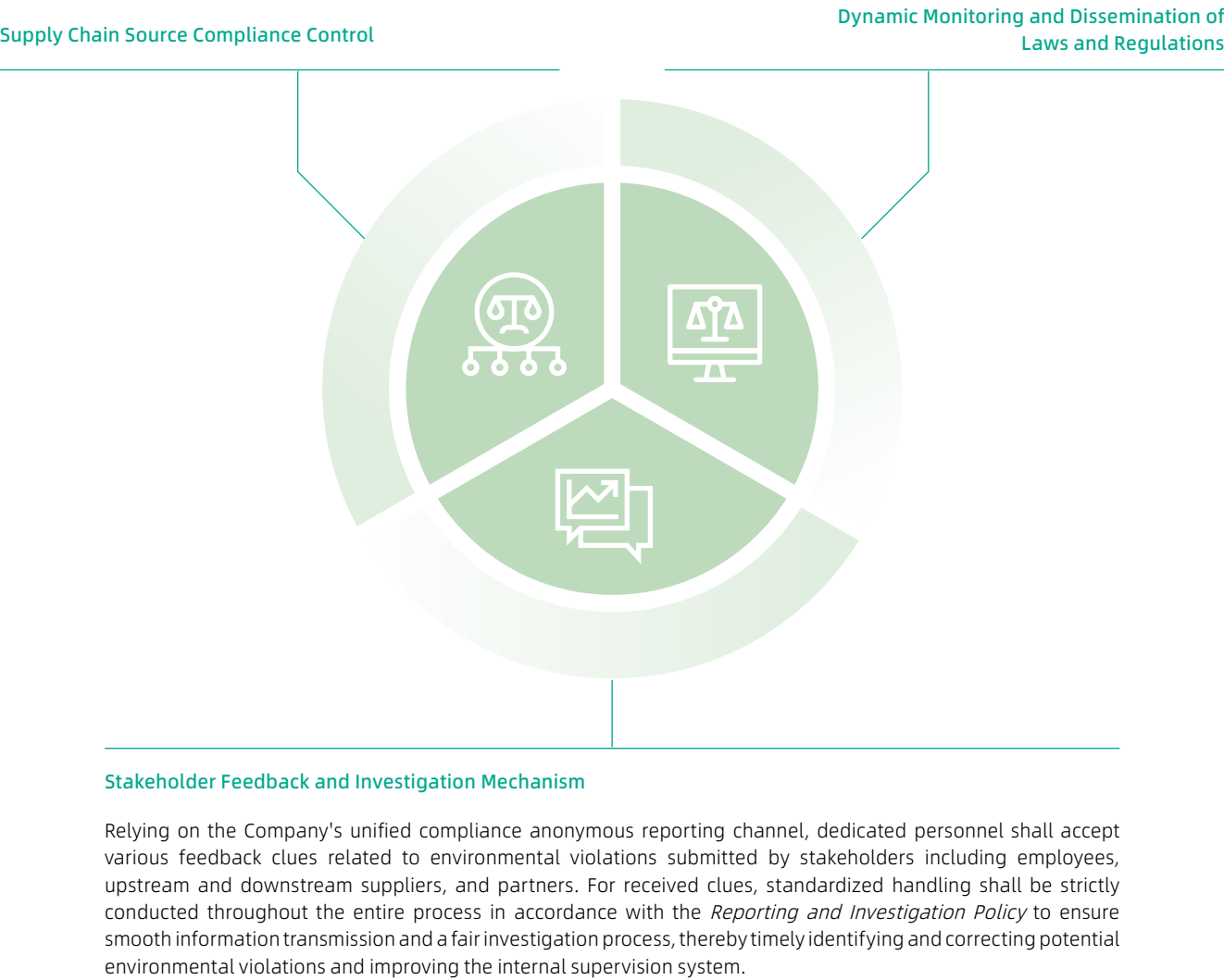


Astronergy Climate Risk Management Process

To strengthen the closed-loop management of climate-related compliance risks, the Company has implemented specialized management in three key areas: supply chain entry, regulatory dynamic monitoring, and stakeholder communication.

The Company establishes a fixed compliance review stage within the key supplier onboarding process. By querying third-party data sources such as enterprise credit platforms, Tianyancha, and Dow Jones, verify suppliers' environmental penalty records. If environmental violations or exceedance records are identified, the Compliance Department shall explicitly outline in the OA approval process the chain risks including potential legal penalties, order fulfillment interruption, and brand reputation damage, and issue clear compliance review comments. All audit records shall be retained and archived to form a complete and traceable compliance ledger, ensuring effective control of environmental legal risks from the supply chain source.

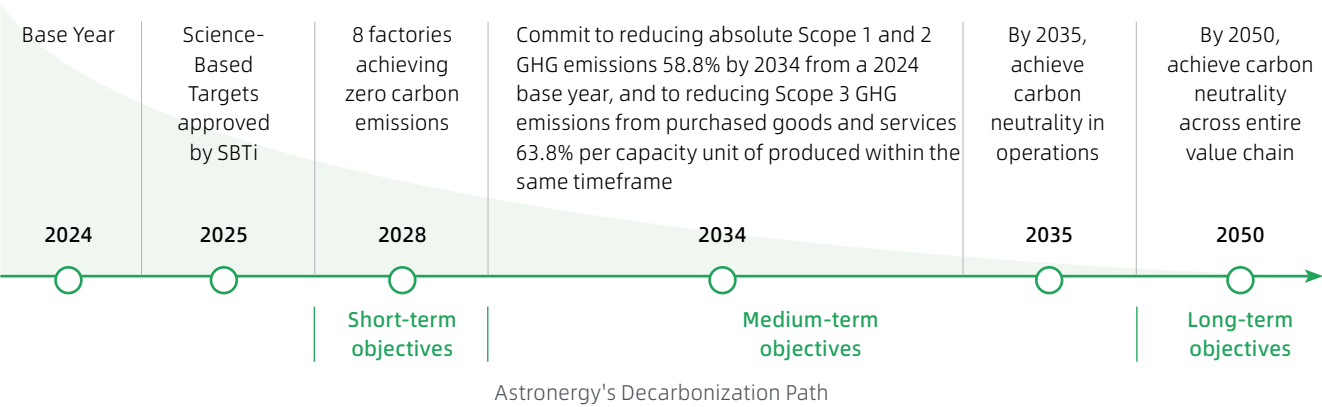
The Compliance Department organizes all departments to conduct comprehensive work on regulation identification, updates, and dissemination, covering relevant laws and regulations regarding air pollution, water pollution, cross-border green trade, and overseas environmental controls. Departments shall regularly retrieve official public documents from national and local ecological environment departments and overseas trade regulatory agencies to dynamically collect information on new law revisions, standard updates, and adjustments in regulatory enforcement priorities. Based on this, compliance obligations and legal consequences corresponding to regulation changes shall be systematically reviewed item by item to ensure business operations comply with the latest regulatory requirements.



Astronergy Climate Compliance Risk Special Management

Metrics and Targets

We integrate climate change response into our corporate long-term development strategy, setting phased emission reduction targets based on operational realities and low-carbon transition needs to drive our own operations and value chain collaboration toward green and low-carbon development. In 2025, the Company's Science Based Targets (SBT) were approved by the Science Based Targets initiative (SBTi), signifying that the Company's emission reduction pathway aligns with the 1.5°C temperature control target and providing an ambitious yet feasible action path for value chain emission reductions.



To ensure the effective implementation of targets, the Company has established the *Management System for Greenhouse Gas Emission Source Identification, Data Collection and Calculation, and Audit*, standardizing management processes including emission source identification, data collection and calculation, inventory and report preparation, and internal and external audits. This ensures the scientific rigor and accuracy of data management. Simultaneously, a cross-departmental carbon reduction working group was established to strengthen collaborative management and process monitoring, coordinating the implementation of emission reduction measures.

To guarantee a closed-loop management system, clear division of responsibilities has been defined: The greenhouse gas management working group leads boundary determination, report preparation, and base year management; business departments are responsible for original data collection, preliminary verification, and assume responsibility for data authenticity; the EHS Department, as the designated management department, coordinates data consolidation, archive maintenance, quality monitoring, and external verification coordination, ensuring the compliance and reliability of climate information disclosure.

In the emission identification stage

The Company conducted a comprehensive identification of Scope 1, 2, and 3 emission sources by reviewing processes and analyzing the value chain, combined with bills, contracts, and logistics documents. Based on materiality assessment, the Company developed the *Indirect Emission Source Identification Scoring Sheet*.

In the data calculation stage

The Company performed quantitative calculations using activity data and emission factor methods and uniformly completed the *Inventory Register* to ensure the authenticity and accuracy of the data.

Astronergy Key Stages of Greenhouse Gas Inventory

The Company strictly adheres to the ISO 14064-1:2018 standard, conducts annual greenhouse gas verification at all production sites, and obtains independent validation of carbon emission data from third-party professional institutions. These measures continuously enhance the standardization, accuracy, and credibility of greenhouse gas data management, providing reliable data support for the ongoing tracking and verification of emission reduction progress. In April 2026, the Company obtained the 2025 ISO 14064 greenhouse gas verification statement issued by LRQA (Shanghai) Co., Ltd..

Indicator	Unit	2025	2024
Scope 1 greenhouse gas emissions	tCO ₂ e	2,751.73	9,478.07
Scope 2 greenhouse gas emissions	tCO ₂ e	1,024,865.21	1,519,499.10
Scope 3 greenhouse gas emissions	tCO ₂ e	17,209,778.46	19,769,212.87
Total greenhouse gas emissions	tCO ₂ e	18,237,395.40	21,298,190.04

Astronergy 2025 Total Greenhouse Gas Emissions

In 2025, the Company's total greenhouse gas emissions amounted to 18,237,395.40 metric tons of carbon dioxide equivalent, representing a decrease of 14.37% compared to the base year of 2024. Specifically: Scope 1 emissions were 2,751.73 metric tons of carbon dioxide equivalent, accounting for approximately 0.02% of total operational emissions, a decrease of 70.97%³ from 2024; Scope 2 emissions were 1,024,865.21 metric tons of carbon dioxide equivalent, accounting for approximately 5.62% of total operational emissions, a decrease of 32.55%⁴ from 2024; and Scope 3 emissions were 17,209,778.46 metric tons of carbon dioxide equivalent, accounting for approximately 94.36% of total operational emissions, a decrease of 12.95% from 2024.

In 2025, Scope 3 greenhouse gas (GHG) emissions accounted for 94.37% of the Company's total GHG emissions, representing the primary source of the Company's GHG emissions. Consequently, achieving the Company's carbon neutrality objective requires not only the continued reduction of Scope 1 and Scope 2 emissions but also enhanced management of GHG emissions throughout the value chain, with a specific focus on emission reduction potential within the supply chain and downstream operations. To further identify key emission sources and potential climate-related risks, the Company conducted a systematic analysis of the composition of various Scope 3 emission categories to provide a basis for formulating targeted emission reduction measures and value chain carbon management strategies.

Indicators	Unit	2025	Proportion (%)
Total Scope 3 Greenhouse Gas Emissions	tCO ₂ e	17,209,778.46	/
Total Upstream Scope 3 Greenhouse Gas Emissions	tCO ₂ e	16,736,112.75	97.25
Scope 3-1: Purchased Goods and Services	tCO ₂ e	15,917,050.06	92.49
Scope 3-2: Capital Goods	tCO ₂ e	1,630.30	0.01
Scope 3-3: Fuel and Energy-Related Activities	tCO ₂ e	209,208.82	1.22
Scope 3-4: Upstream Transportation and Distribution	tCO ₂ e	458,153.89	2.66
Scope 3-5: Waste Generated in Operations	tCO ₂ e	144,168.04	0.84
Scope 3-6: Business Travel	tCO ₂ e	2,250.91	0.01
Scope 3-7: Employee Commuting	tCO ₂ e	2,173.66	0.01
Scope 3-8: Upstream Leased Assets	tCO ₂ e	1,477.07	0.01
Scope 3-9: Downstream Transportation and Distribution	tCO ₂ e	0.00	0.00
Total Downstream Scope 3 Greenhouse Gas Emissions	tCO ₂ e	473,665.71	2.75
Scope 3-12: Processing of Sold Products	tCO ₂ e	473,665.71	2.75

Astronergy 2025 Scope 3 Greenhouse Gas Emissions

In 2025, the Company's Scope 3 greenhouse gas emissions were primarily concentrated in upstream value chain activities, accounting for 97.25% of the total. Specifically, Scope 3-1 (Purchased Goods and Services) accounted for 92.49% of total Scope 3 emissions, representing the primary source of greenhouse gas emissions within the Company's value chain and serving as a key focus area for future collaborative emission reductions across the supply chain. Emissions from other categories, including Scope 3-3 (Fuel- and Energy-Related Activities), Scope 3-4 (Upstream Transportation and Distribution), and Scope 3-12 (End-of-Life Treatment of Sold Products), constituted a relatively minor proportion and are designated as priority areas for continuous optimization. Downstream emissions originated mainly from Scope 3-12 (End-of-Life Treatment of Sold Products), accounting for 2.75% of total Scope 3 emissions, while the impact of other downstream categories remained relatively limited. Based on this emission structure, the Company will continue to strengthen carbon emission management throughout the supply chain, collaborate with upstream and downstream partners to advance value chain emission reductions, and continuously enhance low-carbon management capabilities across the value chain.

Based on the analysis of the greenhouse gas emission structure, we have identified key priorities for value chain emission reductions. We have deeply integrated value chain carbon management into the enterprise's low-carbon development strategy. Focusing on critical links such as procurement, production, logistics, product use, and recycling, we have established a decarbonization pathway covering the entire value chain. We will continue to collaborate with upstream and downstream partners to advance emission reduction practices, providing robust support for achieving science-based targets and realizing the long-term vision of net-zero development.

³ The Company's Scope 1 greenhouse gas emissions in 2025 decreased significantly compared to 2024, primarily due to the Company's continuous improvement in energy efficiency and optimized management of energy usage, including natural gas.

⁴ The Company's Scope 2 greenhouse gas emissions in 2025 decreased significantly compared to 2024, primarily due to the Company's deepening of energy management system construction and operational management. Measures such as optimizing production processes, implementing energy-saving renovation projects, and adjusting the energy structure of production stages were taken to improve energy efficiency and reduce the consumption of externally purchased electricity and other directly used energy sources.

02

Practicing Green Operations and Advancing Low-Carbon Manufacturing

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Astronergy integrates green and low-carbon principles throughout its production and operations and continues to advance low-carbon manufacturing through green management, energy conservation and consumption reduction, clean energy use, zero-carbon factory development, and digital management and control. By improving management systems, enhancing energy efficiency, optimizing the energy mix, and strengthening process management, the Company continues to reduce energy consumption and greenhouse gas emissions from its own operations while enhancing green operational capabilities and climate resilience.

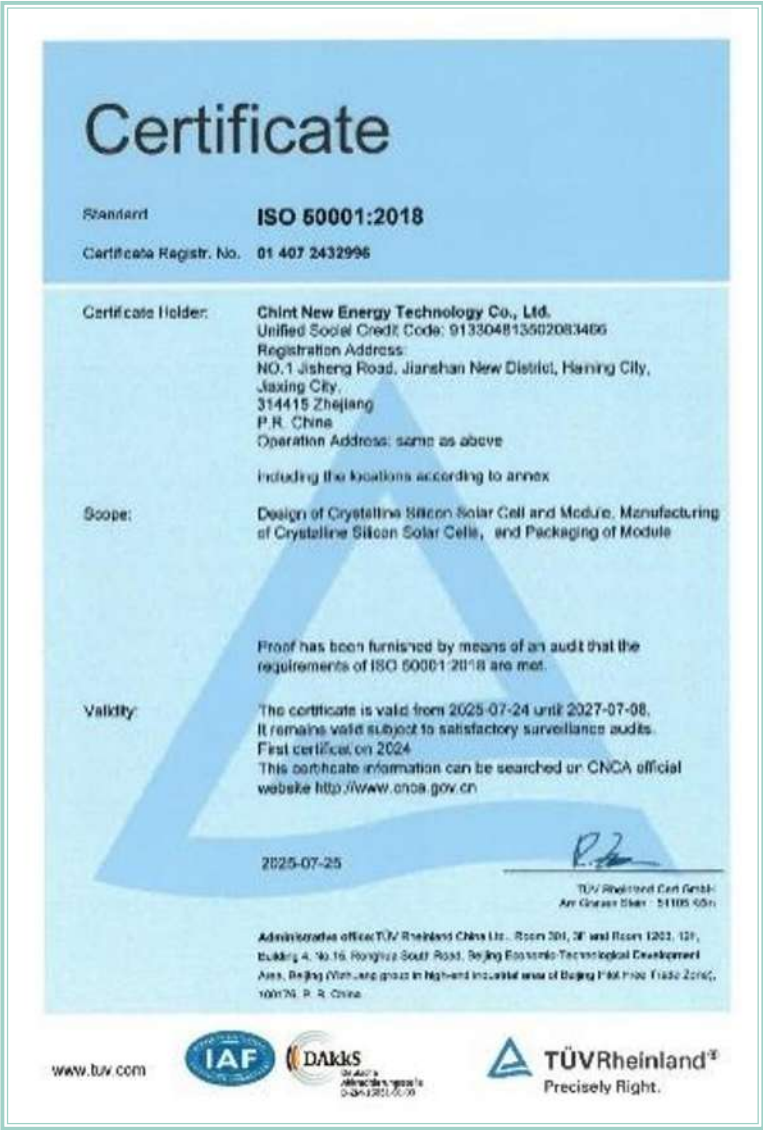


Reinforcing Green Management

The Company regards energy and greenhouse gas management as foundational to advancing low-carbon manufacturing. It has formulated and implemented internal policies and procedures, including the *Management System for Identification of GHG Emission Source Identification, Data Collection and Quality Management Procedure* and the *GHG Management System Procedures*, to standardize GHG emission source identification, data collection, accounting and review, and audit management. These measures improve the accuracy, completeness, and traceability of carbon emissions data, providing a reliable data foundation for emissions reduction target management and climate-related disclosures.

The Company uses its emissions reduction targets validated by the Science Based Targets initiative (SBTi) to guide its medium- and long-term low-carbon transition. It continuously tracks Scope 1, Scope 2, and value chain-related GHG emissions performance and incorporates energy performance improvements, energy-saving projects, green energy use, and zero-carbon factory development into its decarbonization pathway, aligning climate-related targets with daily operational management and key project implementation.

Focusing on key energy-consuming processes in production and operations, the Company routinely conducts energy consumption statistics, improves energy efficiency, manages energy-saving projects, and enhances energy performance to ensure the effective operation of its energy management system. As of December 31, 2025, 100% of the Company’s major operating sites were certified to the ISO 50001 Energy Management System.



Astronergy’s ISO 50001 Energy Management System

Unlocking Energy-Saving Potential

Guided by its green development philosophy, the Company continues to advance low-carbon manufacturing through energy conservation and consumption reduction, green office practices, and waste recycling and resource recovery. By optimizing resource allocation and use, implementing energy-saving retrofits, and strengthening standardized controls, the Company has reduced resource consumption in production and operations while achieving both environmental and economic benefits.

To reduce production energy consumption and operation and maintenance costs, the Company implemented targeted energy-saving equipment retrofits across its manufacturing bases. Focusing on energy-intensive equipment and key processes, the Company continued to deepen energy-saving upgrades and significantly improve energy efficiency per unit of product.

 In 2025, the Company implemented 132 energy-saving projects, saving 72 million kWh of electricity and approximately RMB 62.3517 million in costs.	
Air Conditioning Fan Energy-Saving Retrofit	The Haining Base retrofitted the fans in 411 air conditioning return fan units (RCUs) across selected workshops. The original equipment, which was energy-intensive, difficult to maintain, and prone to affecting workshop cleanliness, was replaced with intelligently controlled EC brushless DC motors. The retrofit significantly improved operating efficiency and maintenance convenience, delivering cumulative electricity savings of 6.1419 million kWh and cost savings of approximately RMB 3.4394 million.
Exhaust Heat Recovery Retrofit	The Company implemented an energy recovery project for exhaust heat in the cell workshop. The project recycles medium- to high-temperature clean exhaust air from process equipment, using it as a low-enthalpy fresh air source in summer to reduce air conditioning load, and as a free heat source for winter heating, thereby reducing traditional energy consumption and decreasing the need for air conditioning and boiler heating. The project is expected to save approximately RMB 1.998 million annually.
Energy-Saving Retrofit of Fan Filter Unit (FFU) Systems	To reduce energy consumption in clean workshops, the Company implemented energy-saving retrofits of FFU systems at several bases, including the Fengyang, Haining, Yueqing, and Yiwu Bases. By optimizing the structure of the FFU air intake filters, the Company replaced the original frameless non-woven fabric with a framed combination of non-woven fabric and filters. This modification effectively increased the inlet area and reduced system resistance, thereby achieving energy conservation and consumption reduction. As of December 31, 2025, the completed retrofits delivered cumulative electricity savings of approximately 7.06 million kWh and cost savings of approximately RMB 3.9858 million.

Astronergy’s Energy-Saving Practices

To manage climate-related risks and opportunities, the Company is establishing a long-term energy-saving mechanism through refined controls in office settings. By upgrading its energy consumption management platform, the Company enables precise monitoring and regular consolidation of water, electricity, and equipment energy use, significantly reducing manual meter-reading costs. It also strictly implements energy-saving management requirements, standardizes the use of air-conditioning, lighting, and other equipment, promotes paperless office practices, and accelerates the replacement of energy-intensive equipment with energy-efficient alternatives. In addition, the Company routinely conducts energy-saving awareness campaigns and performance assessments, such as installing wastepaper recycling facilities in printing rooms to reduce paper consumption. These measures have reduced overall office energy consumption and indirect carbon emissions, strengthened the foundation for office decarbonization, and improved operational efficiency.

The Company implements standardized waste sorting across its operations to reduce waste at source. It strengthens implementation through designated collection, compliant transportation, recordkeeping, and strict controls on single-use items. The Company also promotes the recovery and recycling of solid waste, significantly increasing the resource recovery rate of recyclable waste. These measures reduce greenhouse gas emissions, including carbon dioxide and methane, from landfilling and incineration, lower the carbon footprint of waste disposal, and support the Company’s long-term sustainable development.

Expanding the Application of Green Energy

To effectively address climate-related risks and capture opportunities arising from the low-carbon transition, the Company continues to reduce energy consumption per unit of output value and accelerate the transition toward a cleaner, lower-carbon energy mix. Across its manufacturing bases, the Company has systematically deployed distributed photovoltaic power generation and user-side energy storage projects. Through coordinated self-generation, self-consumption and peak shaving and valley filling, these projects increase the share of renewable energy use, reduce reliance on purchased electricity and fossil fuels, and strengthen supply chain climate resilience.

Performance Highlights

As of the end of June 2026

The total installed capacity of distributed self-generated and self-used photovoltaic projects across the Company's plants reached **62.56** megawatts (MW)

The total capacity of user-side energy storage projects was **252** megawatt-hours (MWh)

Cumulative photovoltaic power generation from the Company's factory rooftops reached approximately **105.9064** million kilowatt-hours (kWh)

Advancing Zero-Carbon Development

Building on its digitalized and refined production and operational management, the Company continues to advance green factory and zero-carbon factory development. It integrates energy management, resource efficiency improvement, green energy use, energy-saving and carbon-reduction retrofits, and carbon emissions management into factory development and daily operations, driving the green and low-carbon transformation of manufacturing.

The Company continues to deepen carbon reduction across its production and operations. Following the Yancheng Base, the Jiuquan Base became the Company's second zero-carbon factory to obtain third-party certification from TÜV Rheinland. During the certification period, 100% of its operational electricity came from renewable energy, and 100% of its residual GHG emissions were offset through verified carbon credits. This achievement demonstrates tangible progress in optimizing the Company's energy mix and strengthening climate resilience, while providing a replicable model for its broader net-zero transition strategy.

As of the end of June 2026, five production bases of Astronergy have been honored with the title of National, Provincial or Municipal level Green Factories. Yancheng Base - Phase I and Jiuquan Base have been certified as Zero-Carbon Factories, providing replicable practices for advancing low-carbon manufacturing and green operations.

Looking ahead, the Company will systematically advance its zero-carbon factory development plan and aims to establish two additional zero-carbon factories in 2026. It will also continue to strengthen each manufacturing base's capabilities in energy efficiency, renewable energy use, carbon emissions data management, and the implementation of energy-saving and carbon-reduction projects. By 2028, the Company plans to have established a total of eight zero-carbon factories, further reducing the carbon intensity of its production and operations and supporting the achievement of its medium- and long-term emissions reduction targets.

Driving Digital and Intelligent Decarbonization

The Company continues to strengthen its energy management system to improve resource efficiency, using digital tools to enhance the transparency and traceability of energy consumption data.

In 2025, the Company successfully deployed Phase I of its Energy Management System (EMS), enabling centralized monitoring and in-depth analysis of energy consumption data across its major manufacturing bases. This provides a solid data foundation for optimizing the energy mix and controlling operating costs.

Meanwhile, through its self-developed Energy Management System (EMS), the Company has connected end-use equipment in office areas, including air-conditioning systems, lighting, and electrical outlets, to the Internet of Things (IoT) for centralized monitoring.

Intelligent Scheduling Control



For lighting and air-conditioning systems in public areas, the platform uses preset automatic start-up and shutdown schedules based on weekdays, public holidays, and seasonal changes. This ensures that equipment automatically enters low-power mode or shuts down outside working hours, eliminating unnecessary lighting and idle operation.

Environment-Responsive Adjustment



The Company has installed temperature and humidity sensors and light sensors to dynamically adjust air-conditioning power and lighting levels based on actual indoor conditions, enabling on-demand energy use while maintaining comfort.

Closed-Loop Management Mechanism



The Company has established a closed-loop management mechanism. The energy consumption management platform generates monthly energy consumption analysis reports and regular audit notices. Combined with routine administrative inspections, energy-saving indicators are incorporated into departmental performance assessments to ensure energy-saving accountability at every level.

Strengthening the Cultural Foundation

Facing an increasingly complex global climate regulatory landscape, the Company plans to strengthen climate risk management through employee capacity building and optimized digital tools, thereby establishing an agile and efficient compliance risk control framework.

Capability and Awareness Enhancement

Tiered and Role-Specific Courses

Provide specialized courses for frontline business roles, including procurement and sales.

Practical Training Focus

Provide focused guidance on operational requirements under regulations such as the Batteries Regulation, strengthening employees' awareness of climate-related compliance risks and reducing compliance losses caused by operational oversights.

Climate Risk Response Capability Building

Provide specialized training on extreme weather events such as extreme heat for frontline workers, new hires, and other priority groups, strengthening their capabilities in risk identification, prevention and protection, and emergency response.

Employee Low-Carbon Awareness Enhancement

Promote energy conservation and emissions reduction through thematic communications, knowledge quizzes, energy-saving initiatives, and feedback channels, integrating green and low-carbon principles into employees' daily work and lives.

Digitalization and Process Optimization

Dynamic Policy Database

Establish a digital climate compliance policy database to replace fragmented manual information collection.

Global Regulatory Tracking

Consolidate carbon tariff, carbon footprint, and environmental compliance rules in key markets, including the European Union and North America.

Alert Mechanism

Set up alerts for policy updates and clarify their scope of application and key requirements, ensuring that business teams receive consistent and timely information.

CASE | Specialized Training on Heatstroke Prevention and Heat Stress Mitigation

To address workplace safety and employee health risks arising from prolonged summer heat, the Company provides specialized training on heatstroke prevention and heat stress mitigation for all employees, with particular emphasis on frontline workshop employees, outdoor workers, and new hires. The training covers the recognition of heat-related illness and heatstroke, preventive and cooling measures, emergency response procedures, and applicable regulatory requirements, helping employees strengthen their ability to identify heat-related risks and respond to on-site emergencies.



Specialized Training on Heatstroke Prevention and Heat Stress Mitigation

CASE | Energy Conservation and Emissions Reduction Campaign

In 2025, the Company organized an energy conservation and emissions reduction campaign featuring a knowledge quiz and the "Spot and Report Energy Waste" initiative, encouraging employees to adopt green and low-carbon practices at work and in daily life. The quiz focused on energy conservation and emissions reduction concepts and practices, helping employees deepen their understanding of energy saving and carbon reduction. The initiative encouraged employees to identify and report energy waste, such as lights left on in unoccupied areas, taps left running, and compressed air leaks, enabling timely corrective action. A total of 436 employees participated, further strengthening energy conservation and emissions reduction awareness and fostering broad employee engagement in reducing energy and resource consumption.



03

Partnering Across a Green Value Chain to Build a Responsible Ecosystem

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Astronergy regards the development of a green and sustainable value chain as a key component of its climate action strategy. Focusing on critical areas such as raw material procurement, warehousing and logistics, employee travel and accommodation, and supplier collaboration, Astronergy strengthens Scope 3 greenhouse gas emissions management and enhances collaborative decarbonization across the value chain by improving green procurement mechanisms, optimizing warehousing and logistics practices, Promoting Green Commuting and low-carbon accommodation, and conducting supplier engagement and industry exchanges.



Advancing Green Procurement

The Company further integrates green and low-carbon requirements into procurement and supplier management. The Company strengthens green procurement mechanisms through improvements in management systems, supplier green assessments, carbon data management, and low-carbon material applications, enhancing the role of procurement activities in supporting value chain emissions reduction and sustainable supply chain development.

The Company continuously improves supplier management-related policies and gradually integrates ESG and greenhouse gas management requirements into supplier qualification, audits, and annual evaluations, making green performance an important consideration in procurement decisions. During supplier onboarding, the Company strengthens the early identification of compliance and sustainability risks. During supplier audits and evaluations, the Company incorporates assessment criteria related to green and low-carbon performance, energy efficiency, resource conservation, and ESG performance in addition to conventional requirements such as quality, production, and research and development. The assessment results serve as important references for supplier selection, annual evaluations, and continuous improvement. Meanwhile, the Company conducts supplier green assessments based on the *Astronergy Green Supplier Evaluation Indicator List*, encouraging suppliers to strengthen energy and carbon emissions management, improve energy consumption monitoring and control mechanisms, thereby enhancing green manufacturing capabilities. Guided by the management philosophy of "localization, mutual benefit, cultivation, and support," the Company promotes the localization of its supplier base and the coordinated development of its industrial chain, taking into account the characteristics of raw materials, its production footprint, and upstream delivery models. By shortening supply and demand response chains, the Company reduces carbon emissions from transportation while enhancing supply assurance capabilities and incorporates local supply capabilities into procurement planning.

To enhance the refinement of carbon management in procurement, the Company promotes the collection of information on supplier carbon emissions, product carbon footprints, green factories, renewable electricity, and green energy certificates, focusing on eight major categories of materials and other highly relevant and energy-intensive materials. Considering differences in suppliers' carbon data foundations and information disclosure capabilities, the Company continuously improves data collection, verification, comparison, and application processes, strengthens data consistency and quality management, and provides data support for carbon emissions accounting, product carbon footprint management, and low-carbon procurement decision-making.

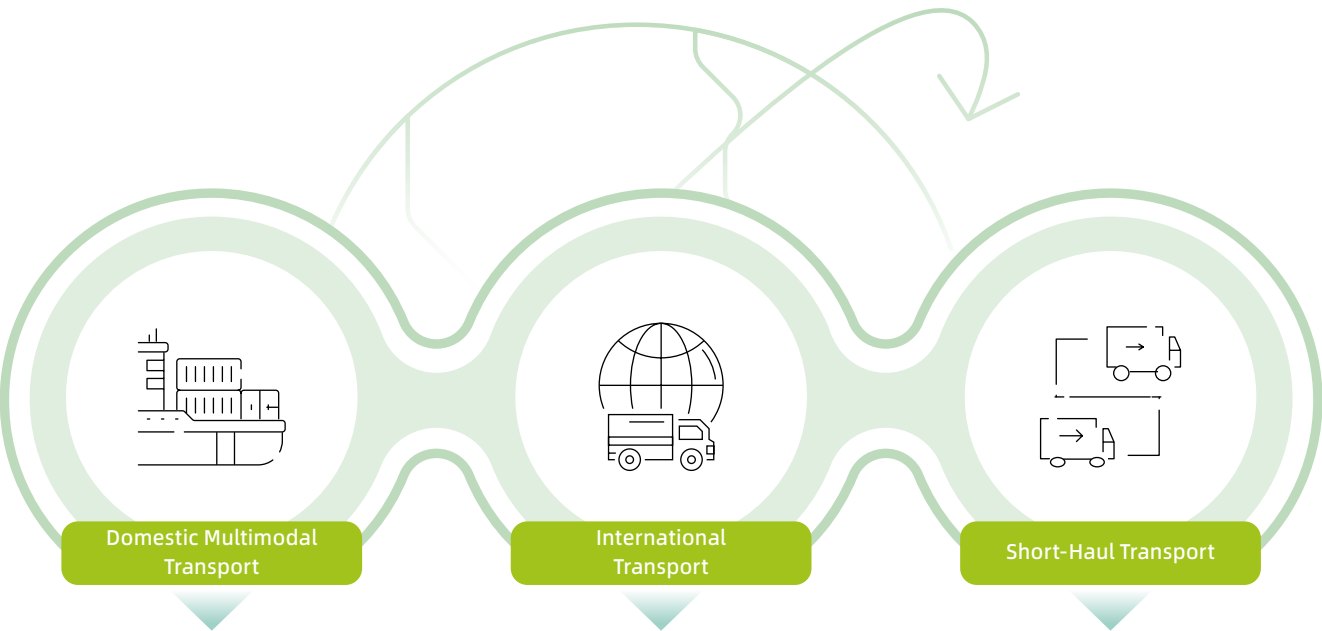
The Company considers material selection as a key pathway for advancing green procurement, actively developing and applying low-carbon, recycled, and alternative materials to reduce resource consumption and embodied carbon emissions associated with raw materials and packaging during the procurement stage. Exploring the replacement of conventional frames with composite frames, the Company reduces energy consumption and carbon emissions associated with relevant materials. While balancing quality, cost, and application requirements, the Company continues to expand the adoption of green and low-carbon materials.

Looking ahead, the Company will further improve the supplier green assessment system, increase the evaluation weight of carbon management indicators, and promote the integration of assessment results with order allocation, supplier classification, and bidding qualification management. The Company will optimize supplier carbon emissions data collection mechanisms, explore the establishment of a digital carbon data management platform, promote low-carbon raw material procurement and the development of a low-carbon material catalog, gradually increase the proportion of low-carbon materials and recycled materials used, thereby reducing virgin resource consumption and related carbon emissions.

Collaborating on Green Warehousing & Logistics

Warehousing and logistics connect manufacturing operations with customer delivery, serving as a critical link for the Company to advance value chain decarbonization. Focusing on transportation structure optimization, warehouse equipment electrification, digital warehouse management, and packaging recycling, the Company reduces energy and resource consumption throughout warehousing, transportation, and delivery processes, thereby improving the low-carbon performance of logistics and warehousing operations.

The Company continues to optimize transportation mode combinations across different scenarios, including domestic, international, and short-haul transportation. By advancing multimodal transport, adopting green logistics resources, and transitioning to new energy vehicles across various scenarios, the Company reduces energy consumption and greenhouse gas emissions associated with logistics transportation.

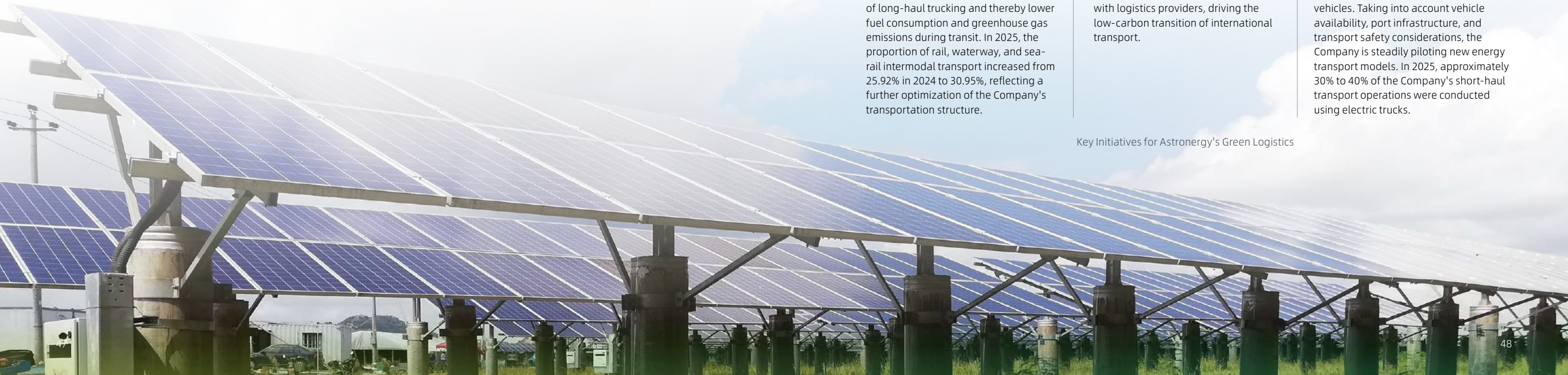


The Company actively promotes multimodal transport solutions, including sea-rail intermodal transport and waterway transport, to reduce the share of long-haul trucking and thereby lower fuel consumption and greenhouse gas emissions during transit. In 2025, the proportion of rail, waterway, and sea-rail intermodal transport increased from 25.92% in 2024 to 30.95%, reflecting a further optimization of the Company's transportation structure.

To meet customers' demand for low-carbon shipping, the Company discusses the feasibility of deploying green fuels and new energy vessels with logistics providers, driving the low-carbon transition of international transport.

For short-haul routes such as factory-to-port transportation, the Company is encouraging its external fleet operators to increase the adoption of new energy vehicles. Taking into account vehicle availability, port infrastructure, and transport safety considerations, the Company is steadily piloting new energy transport models. In 2025, approximately 30% to 40% of the Company's short-haul transport operations were conducted using electric trucks.

Key Initiatives for Astronergy's Green Logistics



Beyond optimizing its transportation modes, the Company reduces transportation distances through coordination between production and sales and localized production scheduling. It strategically plans transportation routes, optimizes logistics coverage, and strengthens the coordination between sales and production plans, prioritizing deliveries from the nearest manufacturing base, thereby minimizing unnecessary long-haul transport. In 2025, approximately 52% of products were scheduled based on "optimal shipping distance," which helped reduce transportation mileage and logistics-related carbon footprints while improving delivery stability and cost management capabilities.

In warehousing operations, the Company focuses on equipment electrification and operational efficiency improvement to advance green warehouse development. The Company replaces fuel-powered warehouse handling vehicles with electric forklifts, electric pallet trucks, electric stackers, and other electric equipment, achieving zero fuel consumption in warehouse handling operations. In 2025, the forklifts used for the internal transfer of modules have achieved 100% electrification. Digitalization serves as a key enabler for enhancing warehouse operational efficiency. The Company has deployed a standardized Warehouse Management System (WMS) that integrates RFID location tags, PDA barcode scanners, and intelligent location monitoring terminals. This digital infrastructure connects the entire warehousing process, including inbound receiving, shelving, picking, inventory counting, and outbound dispatch. Through digital management of goods movement and storage locations, the Company reduces unnecessary handling and repetitive operations, driving the upgrade of warehouse operations toward intelligent, lean, and low-carbon operations.

Across production, warehousing, and logistics operations, the Company is advancing practices such as replacing wooden pallets with steel pallets, recycling packaging liners and sleeves, standardizing packaging specifications, and reducing auxiliary material usage, thereby establishing a packaging management system characterized by "recyclability, low consumption, full recovery, and zero waste". At the Fengyang Base, the Company has established a transportation packaging recycling mechanism. After battery products are transported to module factories and packaging materials are dismantled, the Company collects and returns the packaging materials to factories for recycling, creating a closed-loop packaging management system. The Fengyang, Yiwu, Haining, Yueqing, and Yancheng Bases jointly implement waste wooden pallet recycling initiatives, continuously improving packaging resource recycling efficiency. In 2025, the Company's replacement rate of wooden pallets with steel pallets reached approximately 80%, while the recycling rate of packaging liners reached approximately 80%, effectively reducing packaging resource consumption.

Looking ahead, the Company will further deepen the application of multimodal transport, increase the proportion of waterway and railway transport, and explore green shipping solutions and clean energy options for short-haul transport. Meanwhile, the Company will continue to enhance its digital Warehouse Management System (WMS), develop a low-carbon energy consumption monitoring module for warehousing, and advance the upgrade of its Transportation Management System (TMS). Through these efforts, the Company aims to achieve end-to-end digitalization, data interoperability, automated carbon accounting, and full-process visibility across all transport operations, further strengthening its low-carbon logistics management capabilities.



Promoting Green Commuting

The Company incorporates green mobility into daily operational management, focusing on scenarios including business vehicles, shuttle services, employee commuting, business travel, and accommodation arrangements to promote low-carbon management across travel and accommodation activities. By optimizing vehicle energy structures, improving charging infrastructure, launching a digital travel management platform, encouraging low-carbon transportation modes, and coordinating the use of internal accommodation resources, the Company reduces energy consumption and carbon emissions associated with travel and accommodation, embedding green and low-carbon practices into employees' daily work and business activities.

The Company actively promotes low-carbon transportation by prioritizing the deployment of new energy vehicles for business travel, industrial park sightseeing, and internal shuttle services, gradually reducing the use of conventional fuel-powered vehicles. Compared with conventional fuel vehicles, new energy vehicles help reduce fuel consumption and exhaust emissions during operation, while lowering fuel usage and related environmental impacts associated with vehicle operation and maintenance.



Electric sightseeing vehicles at Astronergy industrial park

To support green commuting and the use of new energy vehicles among employees, the Company continues to improve charging infrastructure within industrial parks by deploying both fast and slow charging piles to meet the charging needs of employees' private vehicles, business vehicles, and industrial park shuttle vehicles. Preferential charging rates are offered to encourage employees to choose new energy vehicles for commuting.



EV charging stations at Astronergy industrial park

The Company leverages digital tools to enhance travel management efficiency and advance the low-carbon transition of business travel. A travel management platform has been developed and launched, enabling one-stop booking for flights, hotels, trains, and ride-hailing services. The platform integrates application, approval, booking, and reimbursement processes, improving travel management efficiency while providing data support for optimizing the travel structure and identifying emission reduction opportunities. In 2025, the Company's travel management platform supported employee business travel for 20,582 employee trips, supporting digital and more efficient business travel management.

To further guide employees toward low-carbon business travel, the Company has introduced a flight carbon emission information feature on the travel platform, showing the carbon emission levels of different flights on the booking interface. This enables employees to consider carbon performance when planning itineraries and select relatively lower-carbon travel options. In daily travel management, the Company encourages employees to prioritize transportation modes with more cost-effective transportation options and lower carbon emissions based on actual needs. Through initiatives such as the "Travel Bulletin Board", the Company periodically summarizes employee travel practices, recognizes and rewards positive behaviors such as choosing low-carbon options and booking tickets in advance, encouraging employees to develop low-carbon, efficient, and cost-conscious travel habits.



Astronergy's Travel Management Platform

CASE | Astronergy's "Green Travel Champion" Initiative

In 2026, Astronergy launched the "Green Travel Champion" initiative, integrating low-carbon concepts into employee business travel scenarios. When employees book flights, the system automatically calculates carbon emissions for each journey segment and displays differences in carbon emissions among flight options, enabling employees to better understand travel-related carbon footprints. The initiative ranks employees based on accumulated carbon reductions and provides rewards for outstanding participants, encouraging employees to actively choose low-carbon travel options.

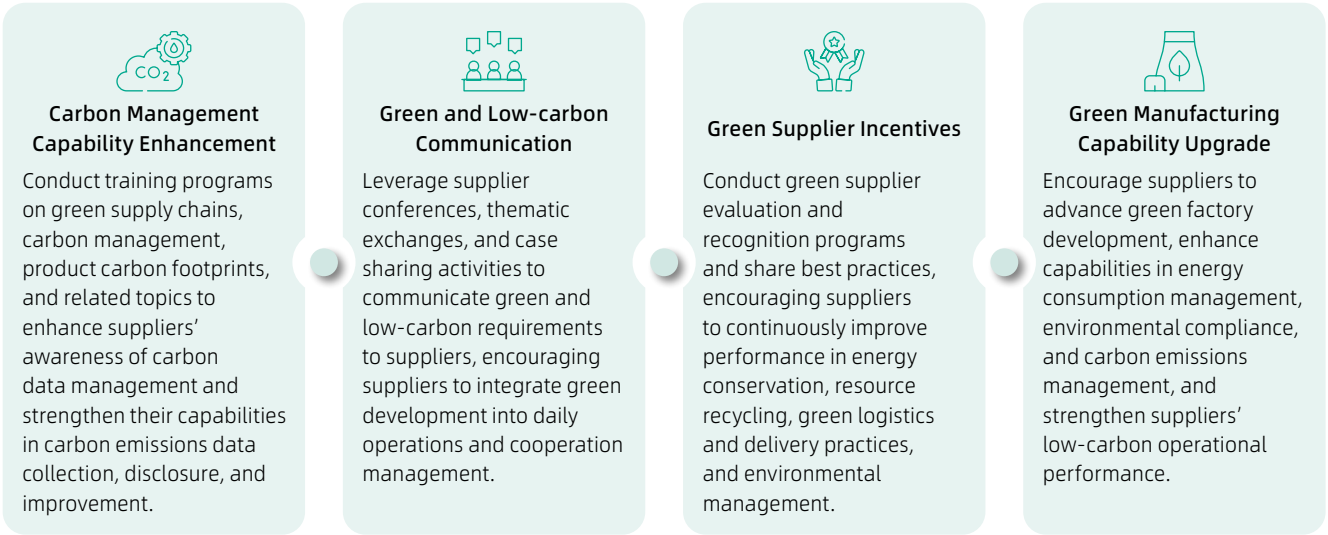
International Trip Planning Expert	** WANG	100% of bookings made more than 7 days in advance
Domestic Trip Planning Expert	**HUANG	100% of bookings made more than 3 days in advance
Online Cost-saving Champion	**CHEN	100% of flights booked at recommended low prices
Cost-Saving Travel Role Model	**YU	28% utilization of hotel allowance standards
	**DING	100% of train bookings with lower occupancy rates

Monthly Leaderboard of the "Green Travel Champion" Initiative

The Company extends low-carbon management from transportation to business travel accommodation, actively expanding low-carbon accommodation scenarios. The Company coordinates the use of internal guest rooms and dormitory resources to provide accommodation support for employees traveling between bases and internal personnel, reducing reliance on external hotels. Through centralized accommodation management, the Company enhances water and electricity conservation control, reduces energy waste caused by prolonged vacancy of rooms, and further decreases resource consumption and related carbon emissions associated with business travel accommodation.

Empowering Partners

The Company regards supplier capacity building as a key lever for advancing the green transformation of its value chain. Through training and awareness programs, supplier conferences, green supplier evaluation and recognition, support for green factory development, and industry exchanges, the Company helps suppliers enhance their capabilities in carbon management, green manufacturing, and environmental management, thereby cascading the philosophy of sustainable development both upstream and downstream across the supply chain.



Astronergy's Green and Low-carbon Supplier Empowerment Measures

The Company actively participates in the collaborative development of green supply chains across the industry, sharing practices in green manufacturing and low-carbon supply chain management through industry initiatives, standard development, and supplier collaboration. The Company has joined the WWF Sustainable Fuel Alliance initiative, focusing on low-carbon transport, sustainable fuel adoption, and green logistics upgrading, while promoting the integration of low-carbon requirements into procurement, production, logistics, and other value chain activities. In addition, the Company contributed to the drafting of industry standards such as the *Requirements for Low Carbon Evaluation of Photovoltaic Module Export Product*, incorporating its experience in green manufacturing, product carbon footprint accounting, and supply chain management into standard-setting efforts, and providing practical reference for the improvement of the industry's low-carbon evaluation system.

CASE | Astronergy Empowers Suppliers to Join the United Nations Global Compact (UNGC)

In December 2025, the United Nations Global Compact (UNGC), together with Fudan University School of Management and the First Financial Sustainability Research Center, jointly organized the "UNGC Knowledge Outcomes and 25 Chain Masters Alliance Case Study Release". Recognized for outstanding practices in supplier empowerment and green manufacturing, Astronergy was successfully selected for inclusion in the *25 Chain Master Alliance Sustainable Supply Chain Case Collection*. During the certification ceremony held alongside the event, representatives from five suppliers assisted by Astronergy in joining UNGC officially received UNGC membership certificates.



Astronergy Empowers Suppliers to Join the United Nations Global Compact (UNGC)

Looking ahead, the Company will continue to advance supplier green capability building and improve its tiered green supplier development mechanism. The Company will support high-potential suppliers in implementing low-carbon transformation initiatives, while collaborating with upstream and downstream partners across the supply chain in areas such as low-carbon process R&D, green logistics optimization, and green factory development. Through these efforts, the Company aims to extend green principles from individual corporate practices toward collaborative governance across the value chain.

An aerial photograph showing rows of solar panels installed over a dense green forest. The panels are arranged in long, parallel lines, and the sunlight creates a shimmering effect on their surfaces. The forest below is lush and green, with the solar panels acting as a canopy over the trees.

04

Envisioning a Green Future, Seizing Energy Opportunities

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In response to global energy transition, low-carbon market access requirements, and climate adaptation needs, Astronergy integrates green and low-carbon requirements into the entire product life cycle starting from R&D and design stage, while improving mechanisms for green product identification, evaluation, and management. Centered on high efficiency, low carbon, application adaptability, and circular utilization, Astronergy continues to advance innovation in materials, structures, processes, and frontier technologies. It develops green products tailored to diverse market and application scenarios, transforming climate and market shifts into opportunities for product upgrades and business expansion.

Developing Low-carbon Products

As requirements for the green and low-carbon performance of PV products continue to increase in domestic and international markets, full lifecycle carbon management has become a critical foundation for PV companies seeking to enhance product competitiveness and meet market access standards.

The Company integrates green and low-carbon requirements throughout the entire process of product R&D, design, and production launch. It has established internal policies, including the *Management of New Product Design, Development, and Introduction for Green Building Material Photovoltaic Modules* and the *Green Product Identification, Evaluation, and Control Procedures*. Through green product identification, evaluation, and control across four dimensions—resource attributes, energy attributes, environmental attributes, and quality attributes—the Company promotes the implementation of relevant requirements throughout product R&D and design processes.

In practice, the Company advances carbon reduction across the entire product value chain through material selection, structural optimization, and manufacturing process improvements. Meanwhile, during the introduction of alternative materials and new technologies, the Company conducts long-term reliability validation, comprehensively evaluates market acceptance and cost impacts, and promotes the coordinated advancement of product carbon reduction, performance enhancement, and commercial application.

Stage	Carbon Reduction Direction	Key Measures	Carbon Reduction Effects
R&D	Low-carbon Material Selection	Prioritize the use of lower-carbon-footprint materials, including granular silicon, low-carbon aluminum, steel frames, composite material frames, and recycled silver paste.	Reduce carbon emissions from major raw materials and lower the carbon footprint of modules at the raw material stage.
	High-efficiency Technologies	Develop TOPCon 5.0 cell technology combined with advanced module efficiency-enhancing technologies, including large-format silicon wafers, multi-cut cell technology, and overlap welding technology.	Increase the mass production efficiency of photovoltaic modules from 23.3% to above 24.2%, reducing carbon emissions per watt by more than 4%.
	Low-carbon Packaging	Develop molded pallets by recycling waste pallet materials and forming them through integrated compression molding.	Reduce carbon emissions by more than 90% compared with conventional wooden pallets.
Design	Silver-reduction Design	Reduce the consumption of silver and other precious metals through advanced cell screen-printing technologies, including ZBB screen printing, high-mesh-count screens, and steel plate-based printing technologies.	Reduce precious metal consumption per cell by more than 10%.
	Lightweight Design	Optimize frame thickness, encapsulant weight, and ribbon diameter through finite element simulation to reduce module material consumption.	Reduce module weight by 1%-2%, helping lower carbon emissions during transportation.
Manufacturing	Low-temperature Interconnection Process	Adopt the self-developed low-temperature strip tiling film technology to complete cell welding and interconnection below 150°C.	Reduce welding energy consumption compared with traditional high-temperature welding processes, eliminate the need for flux, achieve zero VOC emissions, and reduce encapsulant film usage by more than 15%.
	Laser Welding Technology	Adopt laser welding technology for junction boxes.	Reduce energy consumption during the welding process, while increasing welding tensile strength from 80N to above 300N, thereby reducing carbon emissions from subsequent operation and maintenance activities.

Key Initiatives for Astronergy's Low-Carbon Product Development

In advancing product carbon reduction, the Company has established a full life-cycle carbon footprint accounting mechanism covering raw material sourcing, manufacturing, transportation, distribution, and other stages. Based on standards including ISO 14067, SJ/T 11926-2024, and the *Product Carbon Footprint – Product Category Rules – Photovoltaic Modules*, the Company conducts carbon footprint accounting and identifies key emission sources across each life-cycle stage, providing data-driven support for material selection, process improvements, and product carbon reduction. In terms of market access, the Company integrates compliance and low-carbon requirements into the product design stage, identifying carbon footprint, environmental certification, and market access requirements of target markets during the early stages of product development. In response to the EU's Ecodesign and carbon footprint requirements, as well as market-specific frameworks such as Evaluation Carbone Simplifiée (ECS) of France, Electronic Product Environmental Assessment Tool (EPEAT) of the United States, and Environmental Product Declaration (EPD) requirements in Sweden and Italy, the Company proactively conducts product carbon emission assessments, certification preparation, and product verification to evaluate compliance with the carbon requirements of target markets, thereby mitigating market access risks. To implement carbon footprint requirements throughout order execution and product delivery processes, the Company has developed the *Carbon Footprint Order Management Standard*, which defines management requirements for demand collection, review and confirmation, order execution, delivery, and other processes. As of the end of 2025, the Company had obtained carbon footprint certifications and Environmental Product Declaration (EPD) verifications for markets including China, France, Germany, the United States, Italy, Norway, Denmark, and Sweden, with a total of 108 valid carbon footprint certificates and EPD verifications. The certified products recorded a carbon footprint per unit approximately 15% lower than the industry average.

CASE | ASTRO N7s Obtained France Carbon Footprint PPE2 Certification

In 2025, Astronergy's ASTRO N7s module obtained the PPE2 carbon footprint certificate issued by Certisolis in France, achieving a record-low carbon footprint of 350 kgCO₂e/kWc. This certification not only provides essential qualifications for the product's entry into the French and broader European low-carbon markets, but also further strengthens the Company's competitiveness and brand influence in the international market.

350 kgCO₂e/kWc!

Astronergy's France Carbon Footprint Certification Results Released



55

56

Beyond reducing carbon emissions during the production and use stages, the Company extends circularity requirements to the product end-of-life stage. The Company has integrated end-of-life module recycling considerations into the R&D phase, advancing carbon reduction at the product recovery stage through easy-disassembly design, high-value material recovery, and design verification feedback. In 2025, the Company achieved a 100% module recyclability rate, supporting the resource recovery of end-of-life modules and contributing to full lifecycle product carbon reduction.

Easy-Disassembled Design

Adopt a new type of encapsulant film that softens at a specific temperature, reducing the disassembled difficulty of end-of-life module and improving the efficiency in subsequent material separation and recycling stage.

High-Value Material Recovery

Develop technological capabilities for the recovery and purification of high-value materials such as silver and silicon, providing technical support for improving the recovery rate of core materials.

Design Verification Feedback

Incorporate recyclability evaluation into new product review processes and include recyclability rate as an R&D requirement; verify product service life and the proportion of recyclable materials through operational data from power stations and simulated disassembling tests, with verification results fed back into subsequent product design improvements.

Astronergy's Green R&D Initiatives

Looking ahead, the Company will continue to advance technology research in areas including green and low-carbon materials, recyclable design, product lightweighting, service life extension, and low-carbon product development. Through these efforts, the Company aims to progressively reduce resource consumption and carbon emissions across all lifecycle stages, thereby enhancing the environmental performance and market competitiveness.



Seizing Clean Energy Opportunities

The global green energy transition continues to advance, with the market placing higher requirements on the power generation efficiency, carbon emission performance, and environmental adaptability of PV products. The Company actively captures market opportunities arising from growing demand for renewable electricity, increasing demand for low-carbon product procurement, and photovoltaic project development in complex environments. It continues to refine its product portfolio with a focus on enhancing high-efficiency, low-carbon performance and strengthening scenario adaptability.

Upgrading High-Efficiency and Low-Carbon Products

With rising market attention on clean power supply efficiency and product carbon footprints, high power generation efficiency, low material consumption, and low manufacturing energy consumption have become key priorities in PV product development. The Company optimizes products through battery technologies, module structures, material selection, and manufacturing processes, expanding the application of high-efficiency and low-carbon PV products across diverse scenarios.

CASE | ASTRO N7 Pro

In response to market demand for high-efficiency and low-carbon PV products, Astronergy developed the ASTRO N7 Pro module. The product adopts TOPCon 5.0 cell technology, ZBB low-temperature tiling film technology, and quarter-cut interconnection technology to enhance power generation capacity per unit area and reduce the use of precious metals. It also applies, laser welding, and low-carbon frames to reduce material consumption and manufacturing energy consumption. The module achieves a maximum conversion efficiency of 24.8%, contributing to a reduction in full lifecycle carbon emissions per unit of electricity generated.



TopCon 5.0 cell technology

Quarter-cut cell technology

ZBB low-temperature tiling film technology

Steel frame

Composite material frame

ASTRO N7 Pro

CASE | Pavo Tail BIPV

The growing demand in the construction sector for distributed clean electricity and building function integration provides application opportunities for Building Integrated Photovoltaics (BIPV) products. Developed by Astronergy, Pavo Tail BIPV can replace traditional roof tiles while fulfilling roofing functions and enabling photovoltaic power generation. The first installation project achieved annual power generation exceeding 8,900 kWh, equivalent to reducing approximately 4.2 tonnes of CO₂ emissions, providing an integrated product solution for clean energy applications in building scenarios.



Bifacial Series

ASTRO N CHSM09Ns(DG)(BLH)/F-BH Bifacial Series 65~75W

Pavo Tail BIPV

Expanding Scenario-Based Applications

CASE | Chasing the Light, Reaching Beyond: Exploring the Full Potential of PV Modules Across All-Scenario Applications

As the impacts of climate change intensify and extreme weather events become more frequent, and as PV projects extend into complex environments such as offshore sites, desert and Gobi regions, the market is imposing higher requirements on module adaptability and operational reliability under challenging conditions. The Company develops scenario-based products tailored to different climatic conditions, transforming the adaptability requirements arising from complex environments and extreme weather into opportunities for product innovation and market expansion.

II ASTRO N Offshore PV Module



To address extreme marine environments characterized by high corrosion, high salt spray, strong winds and waves, and high humidity, Astronergy launched the ASTRO N Offshore PV Module. The product adopts an all-dimensional enhanced BOM design. Double-layer coated glass on the front side creates a "zero water permeability" barrier, combined with acid-resistant encapsulant film to enhance the long-term reliability of modules under complex environmental conditions. Highly corrosion-resistant and high-strength conventional frames and composite frames are selected to effectively prevent salt spray erosion. The junction box adopts a highly protective and pull-resistant design, equipped with dust plugs to prevent moisture ingress. In addition, moisture-heat-resistant cell paste is innovatively applied to suppress degradation at the cell level. ASTRO N has passed multiple stringent reliability validations and can be flexibly adapted to nearshore fixed, pile-based, and deep-sea floating PV projects, providing highly reliable and high energy yield solutions for offshore PV applications.

II ASTRO N Desert PV Module



Addressing harsh application scenarios in desert and Gobi regions characterized by strong ultraviolet radiation, extreme temperature differences, and frequent sandstorms, Astronergy launched the ASTRO N desert PV module. The product adopts a customized solution by optimizing the UV-resistant cell coating and applying UV-conversion encapsulant film, which converts harmful ultraviolet radiation into effective light spectra and suppresses light-induced degradation. It also applies a dust-resistant self-cleaning coating to reduce dust accumulation and maintenance frequency. It adopts high-strength steel frames with enhanced bending and impact resistance to withstand temperature differences between day and night and sand erosion. The product has passed multiple desert-specific validations, providing highly reliable and high energy yield solutions for PV power stations in desert and Gobi areas, enabling clean energy to flourish in previously barren regions.

II ASTRO N Hail-Resistant Module



For regions with frequent hailstorms, Astronergy developed the ASTRO N High Impact-Resistant Hail Module. The product adopts 2.5 mm fully tempered glass, a high-strength frame structure, and impact-absorbing encapsulant film. The module can withstand hailstones up to 55 mm in diameter, enhancing operational reliability in extreme weather and high-impact risk scenarios.

With increasing demand for efficient land utilization, ecological restoration, and industrial synergy, PV projects are expanding from single power supply scenarios to integrated application scenarios such as agricultural cultivation, aquaculture, desert remediation, and livestock farming. Leveraging highly reliable module products and extensive project experience, the Company actively explores diversified application models, including agrivoltaics, aquaculture-PV complementation, desert-PV complementation, and pasture-PV complementation. These efforts drive the synergistic development of clean energy deployment, ecological improvement, and industrial efficiency enhancement, enabling a single PV panel to deliver greater green value.

II Agrivoltaics



Astronergy supplied all PV modules for the Turkey Gaziantep 7.3MW agrivoltaics power station project. The project leverages local agricultural resources by adopting the "agrivoltaics" model, which involves installing PV panels above farmland while cultivating crops below. PV panels not only provide shade for crops but also mitigate the impacts of extreme weather events such as hail, drought, and heavy snowfall, achieving dual land use and enhancing comprehensive land utilization efficiency.

II Aquaculture-PV Complementation



Astronergy facilitated the successful grid connection of the 74MW Aquaculture-PV complementary project on Dengbu Island, Zhejiang Province. This project adopts an innovative model of power generation on PV panels and farming beneath them, achieving green energy production while providing natural shading conditions for mud crab farming. The project is expected to provide approximately 85 million kWh of green electricity annually, serving as a demonstration model for clean energy development in coastal areas, quality improvement and efficiency enhancement in fisheries, and rural revitalization.

II Desert-PV Complementation



Astronergy facilitated the successful grid connection of the Huadian 1.35 GW new energy project in the Gurbantunggut Desert base (the 250 MW photovoltaic portion in Mulei). Leveraging the abundant solar resources of the Gurbantunggut Desert, this project delivers clean electricity while supporting desertification control through a "power generation above PV panels and ecological restoration below" model, achieving dual benefits for ecological protection and energy transformation.

II Pasture-PV Complementation



Astronergy supplied all PV modules for the New Zealand Ashburton 7.2MW project. This project leverages local livestock resources by adopting a "pasture-PV complementary" model. PV panels are installed above the pasture to provide shade and activity space for sheep below, facilitating the coordinated development of clean power generation and agricultural production. After the project reaches full capacity operation, it is expected to provide approximately 10.87 million kWh of clean electricity annually, contributing to the enhancement of local renewable energy supply capacity and agricultural sustainability.

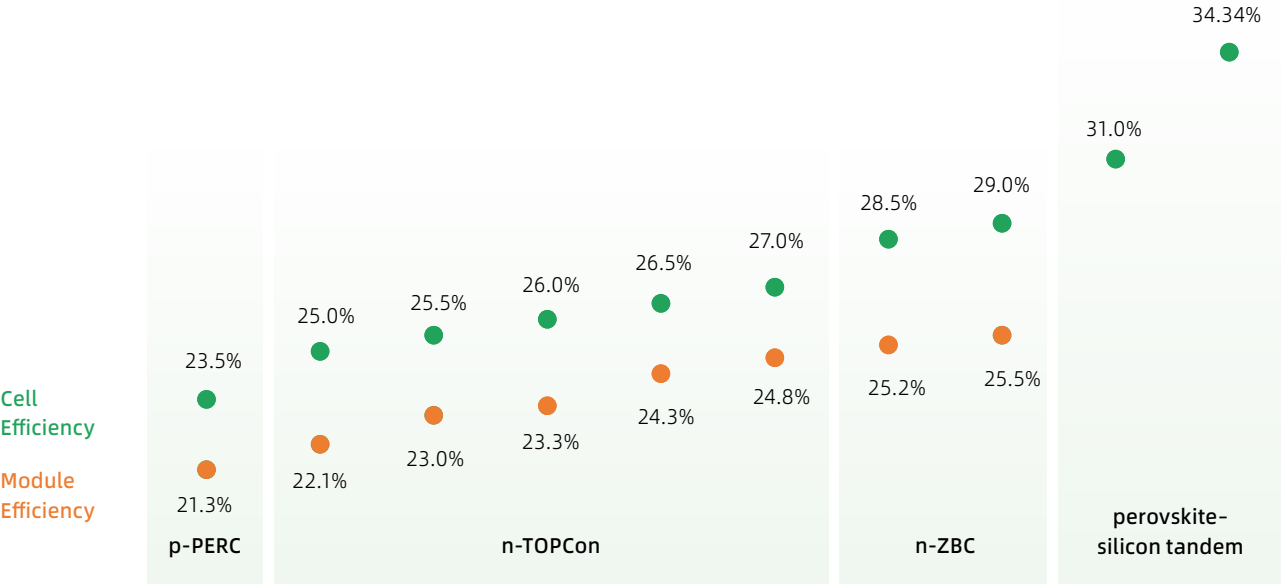
From high-efficiency, low-carbon products to diversified applications, the Company continues to address clean energy market demand through technological innovation, integrating higher efficiency, lower carbon emissions, and stronger environmental adaptability into product development and project implementation.

Exploring Frontier Technologies

Raw material production and processing represent a major source of carbon emissions across the full life cycle of PV modules and are closely tied to the company's value chain emissions. Based on product life cycle carbon footprint accounting results, the Company identifies key emission sources, prioritizes the use of low-carbon materials in R&D and material selection, and advances material reduction, low-carbon substitution, and recycling initiatives. By adopting granular silicon, low-carbon aluminum, steel frames, composite material frames, and recycled silver paste, while promoting low-carbon alternatives for auxiliary materials such as glass, encapsulants, and backsheets, the Company reduces the overall carbon emission intensity of modules from the raw material stage. Meanwhile, the Company continues advancing the iteration of high-efficiency cell and module technologies, enhancing cell efficiency, module efficiency, and module power output to drive coordinated progress in material-related decarbonization and product performance improvement.

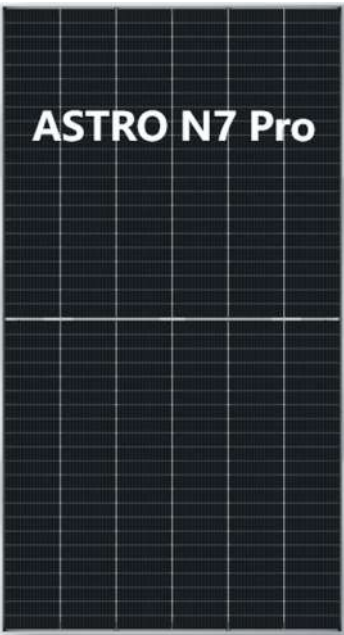
In terms of material application, the Company focuses on advancing low-carbon alternatives for silicon materials, frame materials, cell materials, and encapsulation auxiliary materials. While ensuring the mechanical performance and service life of PV modules, the Company aims to reduce material consumption per unit of module. In terms of silicon materials, the Company prioritizes the use of silicon with a lower carbon footprint at the R&D project initiation stage and actively promotes the application of granular silicon. Compared with conventional silicon rod, granular silicon can reduce carbon emissions by more than 70%. In terms of frame materials, the Company reduces carbon emissions associated with frame materials by adopting low-carbon aluminum materials, such as hydro-aluminum and recycled aluminum, as well as alternative solutions including steel frames and composite material frames. Among these, hydro-aluminum can reduce carbon emissions by more than 85% compared with coal-powered aluminum, while steel frames and composite material frames can reduce material-related carbon emissions by more than 50% compared with traditional aluminum frames. In terms of cell materials, the Company promotes the application of recycled silver paste to reduce the use of virgin silver materials. Compared with virgin silver paste, recycled silver paste can reduce carbon emissions by more than 65%. In terms of encapsulation materials and auxiliary materials, the Company advances the application of fluorine-free backsheet and bio-based encapsulant films, while exploring low-carbon alternatives for auxiliary materials such as glass, encapsulant films, and backsheets. These efforts help reduce resource consumption and carbon emissions associated with conventional encapsulation materials.

While continuously enhancing the low-carbon attributes of materials, the Company continues to advance the technological evolution and upgrading of photovoltaic cells and modules. In terms of TOPCon technology, the Company has successfully developed TOPCon 5.0 high-efficiency cell technology and realized its mass production, with cell conversion efficiency exceeding 26.5%. By integrating advanced module technologies, including 21X large-size silicon wafers, multi-cut cell technology, overlap welding technology, and full-screen module technology, the Company has increased module power output to above 820W. For BC technology, the Company integrates three major technology platforms – ZBB, TOPCon, and BC – to develop and establish capabilities in ZBC high-efficiency cell technology, achieving cell conversion efficiency of 28.2%. Building on this foundation, the Company combines advanced module technologies, including multi-cut cell technology, overlap welding technology, and full-screen module technology, increasing module conversion efficiency to 25.2%. Meanwhile, the Company continues building technological capabilities in perovskite tandem technologies, focusing on industry challenges such as large-area manufacturing process uniformity and long-term product reliability. At present, the Company's large-area perovskite tandem cells developed at the laboratory scale achieved a conversion efficiency exceeding 30%, while thermal stability under 65°C exceeded 800 hours(TC95), providing a foundation for future commercialization.



Efficiency Improvement Roadmap

As a typical example of synergistic carbon reduction achieved through the application of low-carbon materials and technological efficiency enhancement, ASTRO N7 Pro combines material-level carbon reduction with product-level efficiency improvement through optimized product design, material selection, and manufacturing processes, delivering high efficiency, high reliability, and low-carbon sustainability characteristics.



ASTRO N7 Pro

Low-carbon Material Application

Adopt low-carbon frame materials

Apply new high-strength low-carbon frame materials, including steel frames and composite frames. Compared with conventional aluminum frames, these materials reduce embodied carbon emissions associated with frame materials by more than 50%.

Technology-driven Efficiency Improvement

Improve cell efficiency

Apply self-developed TOPCon 5.0 high-efficiency cell technology, together with technologies such as edge passivation and poly-finger technology, increasing mass-production cell efficiency by 0.4% and improving the bifaciality by 5%. Under outdoor high-reflectivity conditions, power generation per unit area can be increased by more than 2.5%.

Increase module power output

Apply quarter-cut cell interconnection technology to reduce internal circuit current to half that of conventional half-cell interconnection technology, lowering internal electrical losses and increasing module power output by more than 10W. Achieve maximum power generation efficiency of 24.8%, and could meet Grade-1 energy-efficiency requirements specified under national mandatory standard GB 47834-2026.

Looking ahead, the Company will further promote material efficiency improvement and recycling initiatives by advancing the development of ultra-thin silicon wafers below 130 μm, thin glass technologies below 1.6 mm, and lightweight frame designs. The Company will also explore the application potential of silver-coated copper and pure copper pastes, gradually increase the utilization of recycled aluminum, recycled silicon, and recycled glass, thereby reducing upstream Scope 3 carbon emissions. Meanwhile, the Company will continue to optimize TOPCon technology, accelerate R&D in BC and perovskite-silicon tandem technologies, and further improve product efficiency and low-carbon characteristics.

Appendix: *IFRS S2 Climate-related Disclosures*
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IFRS S2 Core Elements	Disclosure Items	Corresponding Sections
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	Business model and value chain	1.2 Strategy 3.1 Advancing Green Procurement 3.2 Collaborating on Green Warehousing & Logistics 3.4 Empowering Partners
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	Climate-related targets	1.4 Metrics and Targets





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